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ABSTRACT

This review synthesizes work undertaken in the field of economics and education with the aim of identifying and analyzing the economic dimensions of recurrent education. The development and meaning of the concept of recurrent education are addressed through discussion of the antecedents of the concept, international developments in recurrent education, the concept's relationship with lifelong learning and permanent education, the concept in Australia, and the parameters of recurrent education. Each of the five major economic questions raised by the recurrent education concept are then considered separately. They are (1) the internal efficiency of the education sector, (2) the operations of the labor market, (3) the distribution of educational opportunities between individuals and groups, (4) the share of community resources allocated to education, and (5) the mechanisms through which educational activities are financed. Each issue is approached in a similar manner. First, the principal arguments advanced through the recurrent education debate are presented. Second, the closeness of fit between these arguments and developments in the Australian education sector and economy are assessed. Concluding remarks draw together the threads of the debate identified in preceding chapters. (YLB)

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Recurrent Education: Economic and Equity Issues in Australia

Phillip McKenzie

U.S. DEPARTMENT OF EDUCATION
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1 : THE NATURE OF THE REVIEW

The recurrent education concept has excited much attention among the educational community over the past 15 years. Some of this attention has been extremely critical, including suggestions that the concept is atheoretical (Huberman, 1979), that implementation of recurrent education programs is likely to prove excessively costly (Gannicott, 1972), and even that the concept is 'dangerous' because it inhibits a rigorous examination of specific program proposals (Blaug and Mace, 1977). On balance, the advantages that have been claimed for recurrent education have been of sufficient weight for the concept to have had an extremely favourable response from the educational community. Such advantages have included the potential of recurrent education for facilitating greater equality of educational opportunity (Schuller and Bengtsson, 1977), improving the adaptability of the labour force to technological change (Dymond, 1977), and invigorating educational institutions (OECD, 1975).

It is not only educators who have participated in the recurrent education debate. Since recurrent education involves the provision of educational programs during adulthood, it raises issues such as the role of education in enhancing continuing personal development, the motivation and learning behaviour of adults, the sociological implications of an education sector in which young people and adults are more uniformly represented than at present, and the economic costs and benefits associated with adult participation in educational programs. As such, the recurrent education debate has attracted important contributions from philosophers, psychologists, economists, and other social scientists.

In the present review, the focus is upon the economic dimensions of recurrent education. This selectivity reflects the difficulty for any one volume to cover adequately the full spectrum of the debate. In addition, the economic perspective is important because of the considerable weight likely to be given to economic considerations in resource allocation decisions about recurrent education programs. Economic factors are an important influence on most education resource allocation policies, but such factors are of particular significance for

recurrent education programs because of the far-reaching changes which they imply in the relationships between education, the labour market, and the wider society.

The economic perspective is also useful for analytical purposes. The explicit consideration of potential costs and benefits that is necessitated by the economic perspective can help to systematize the review of any area as diffuse as recurrent education. The application of economics to policy questions involving education does however, have limitations; those of particular relevance to recurrent education are discussed throughout this review.

Economic Elements of the Debate

Contributions to the identification and analysis of the economic dimensions of recurrent education have come from general works on the recurrent education concept and specialist studies from economists with an interest in a particular aspect of the issue. Almost all of the general works on the recurrent education theme have included a section which attempts to identify the broad links between the economy and education, and which also tries to sketch some of the economic issues associated with the introduction of recurrent education (for example, OECD, 1973; Houghton and Richardson, 1974; Schuller and Megarry, 1979).

The common tone of the general works is what may be described as optimistic agnosticism in regard to the likely economic benefits of recurrent education programs. The agnosticism reflects the limited state of knowledge about the general links between education and the labour market and the particular form which those links might take if recurrent education programs were to be implemented on a wide scale. The optimism springs from the belief that no matter how difficult they may be to specify and quantify in advance, the economic benefits arising from a more systematic approach to the training and educational needs of adults are likely to be substantially positive. The tenor of these views is illustrated by the following quotation from one of the major Australian studies on recurrent education:

> At present, in Australia and elsewhere, [economic] calculations have not reached the point where any authoritative statement about costs and returns can be made . . . However, it does seem that recurrent education is making headway in Australia partly from a belief that it is likely to yield a better return on educational expenditure than more 'front-end-loading' education, and to build an administratively useful flexibility of response into the Australian education system. (Duke, 1976:21)

The economists' role in the debate has been to identify, to elaborate, and where possible to quantify particular components of the broad range of economic issues raised by the general works on recurrent education. These components may be expressed in terms of the implications of recurrent education programs for (i) the internal efficiency of the education sector, (ii) the operations of the labour market, (iii) the distribution of educational opportunities between individuals and groups, (iv) the share of community resources allocated to education, and (v) the mechanisms through which educational activities are financed.

Scope of the Review

The review is intended to synthesize the work undertaken in the fields of economics and education which can help shed light on the issues just raised. The issues will be addressed principally in the context of the Australian education system, economy and society. Although the major economic questions raised by the recurrent education concept are interrelated, for analytical reasons they will be considered separately in the following chapters. In each case the approach will be similar and will comprise two major steps. First, the principal arguments advanced through the recurrent education debate will be presented. Secondly, the closeness of fit between these arguments and developments in the Australian education sector and economy will be assessed. In some instances, the evidence which will be used has been generated specifically in the context of the recurrent education literature. Unfortunately, because there are few examples of existing education programs which operate in a manner fully consistent with recurrent education principles, the more common procedure will involve the use of data from programs which have some of the characteristics of recurrent education programs. How satisfactory this procedure proves in particular instances will depend upon judgments of the congruence of the programs under discussion with those advanced under the recurrent education label.

The question arises of the need for a discussion of the economic issues associated with recurrent education, such as is undertaken in this review, particularly in light of the comprehensive analysis by Stoikov (1975). Three major factors have influenced the preparation of a review at this time. First, since the time of the Stoikov publication, the concept of recurrent education has been refined and to a small extent tested in some practical policy initiatives, particularly in Europe. These

developments suggest the value of updating Stoikov's assessments in the light of subsequent (albeit limited) experience. Secondly, there has been only limited work to place the economic issues associated with recurrent education in the Australian context. At least two Australian authors (Cutt, 1978 and Davis, 1979) have addressed economic aspects of recurrent education but their works are more in the nature of contributions to the general recurrent education literature rather than an explicit consideration of recurrent education in Australian terms. The third factor influencing the preparation of the review has been the questioning of the value of recurrent education that has been associated with the economic difficulties of the past few years. Such concerns have been expressed succintly by Sommerlad (1980) in a discussion of the limited treatment of recurrent education contained in the report of the Committee of Inquiry into Education and Training (Williams, 1979):

> Recurrent education is perhaps the utopian dream of an age now gone—the prosperous sixties and early seventies. The dominant preoccupations of our society are with unemployment, technological change, enforced leisure, and early retirement. . . The Williams Report may not be the blueprint for the educationists' future but an epitaph to the recent golden years—and to the concept of socio-democratic, recurrent education, understood as a child of its times. (Sommerlad, 1980:61)

One of the major tasks of the review is to assess the extent to which current and prospective economic conditions are likely to necessitate a reconsideration of the scope of recurrent education as it was originally envisaged.

Implicit in the work of those who have tried to identify the likely costs and benefits of recurrent education programs is whether their potential net benefits are of sufficient magnitude that governments should ensure that the programs are implemented. It is beyond the scope of this review, and in many respects beyond the scope of existing methodologies and data, for that question to be resolved at this time. The present purpose is much more modest, namely to provide a framework through which such sorts of questions may be addressed.

2 : THE RECURRENT EDUCATION CONCEPT: ITS DEVELOPMENT AND MEANING

The difficulty of rigorously defining recurrent education is reflected in the adjectives which have been employed when discussing the concept; descriptors such as 'elastic' and 'chameleon' are common. The terminological confusion has three main aspects. First, a number of other terms such as 'lifelong education' and 'permanent education' have also been employed over the same period and the distinctions between these terms and recurrent education are often unclear. Secondly, even where distinctions between recurrent education and similar terms have been drawn, the meanings attached to recurrent education may still vary, with the consequence that particular programs which may be subsumed by one definition of recurrent education are excluded by another. The need is for a definition which both encapsulates the essential features of recurrent education and also distinguishes it from similar generic terms. Thirdly, the relationship between the concept of recurrent education and programs already operating in areas such as adult education, continuing education, and further education has not always been clear.

Antecedents of the Concept

Although recurrent education is very much a phrase of the past 15 years, its core proposition, that learning is a lifelong process which should continue beyond the end of formal schooling, has been influential in educational thinking for centuries. This view of education received its most obvious initial application in the development of monasteries and universities. A later, less formal, and more broadly based application of the notion was the development of the mechanics institutes and workers educational associations in the nineteenth and early twentieth centuries.

Some proponents of the recurrent education concept have sought to link the development of recurrent education to the educational philosophies of ancient civilizations, especially the Greeks. Despite the

apparent legitimization which such a connection gives, attempts to place the recurrent education concept as the logical succession of a long line of educational ideas have been criticized. For example, Houghton (1974) argues:

> Recurrent education . . . in its contemporary meaning could not have had more than a merely speculative existence before because the social conditions for its existence are only now beginning to exist. It is not an evolutionary concept which has emerged from previous practice and conventional wisdom. It represents one of those very rare shifts in the framework of thinking. (Houghton, 1974:6)

It is beyond the scope of this review to identify the links between the ideas forming recurrent education and those of earlier times. In any event, as argued by Kallen (1979) such an attempt is of relatively low priority:

> Every major idea can with some goodwill and much artisanship be traced back to antiquity . . . Our purpose is not to trace the origin of the ideas that underlie recurrent education but the evolution of the practice. (Kallen, 1979:46)

As a consequence, while the claim of Houghton (1974:6) that 'recurrent education is the first new idea in education this century' is striking and deserves some examination, this will not be undertaken here. What can be safely said is that it was not until the late 1960s that the ideas underlying recurrent education became fused into the design of an alternative means of organizing educational provision. In this alternative design, education would not be confined to the early years of life but would rather be available over the lifetime of an individual in a recurring manner. In the elaboration of this design, several European nations and the Organisation for Economic Co-operation and Development (OECD) played particularly important roles.

International Developments

Recurrent education received its first significant discussion in an international forum during an address in 1969 by the then Swedish Minister of Education, Olaf Palme, to the European Ministers of Education. Palme called for an alternative education strategy which would help to bridge the gap between the young and the old, integrate theory and practice, and reduce some of the strains on both young people and the educational system caused by the ever-lengthening stay of the young in education. The concerns about the performance of the educational system that were felt in Sweden in the 1960s and which led

to proposals for change along recurrent education principles, were strongly influenced by views on the equality of Swedish society. Concern was expressed at that time that the expansion of the conventional education system during the post-war period had principally served the interests of the young, particularly those from more privileged home backgrounds. A large part of this concern was focused upon the potentially deleterious effects of 'youth culture' nurtured by the isolation of young people within an ever-lengthening education system:

> Since education is so long, the personalities and sets of values of young people are largely formed by the time they encounter the sets of values held by others outside the educational environment. That value systems collide—sometimes violently—is in itself no danger to the community of values held by society as a whole . . . It is essential however that the problems . . . under debate are felt to be meaningful to people and their situations, even if the premises on which proposals for solutions and actions are based are not shared. (Sweden. Ministry of Education, 1972:57)

Such concerns led to the establishment in 1968 of a commission to review post-secondary education in Sweden. As part of its proposed restructuring of the post-secondary system, the Commission placed heavy emphasis upon redressing the imbalance of educational opportunities between the generations. To achieve this objective, the Commission recommended policies which would encourage young people to defer elements of their post-compulsory education and encourage educationally disadvantaged adults to return to the education system. Such policies, grouped under the general heading of recurrent education, were seen as not only likely to promote greater inter-generational equality and harmony, but also to facilitate more flexible labour market adjustments to changing requirements and enhance individual freedom of choice and opportunities for self-development. Recurrent education was seen to involve much more than the reorganization of the existing education system, and to comprise a long-term planning strategy which would influence all elements of educational provision for both young people and adults. These principles were endorsed by the Swedish Parliament in 1975 and have since been adopted in policies to broaden admission criteria for higher education, more evenly distribute educational facilities between regions, facilitate educational leave from employment, and more closely integrate the educational and labour market sectors of Swedish society (Ostlund, 1979).

Although Sweden and the other Scandinavian countries have in

many respects led the way in the implementation of many of the principles of recurrent education, within a number of other European nations there has been an active debate on the recurrent education concept and the promotion of reforms consistent with recurrent education (see, for example, the discussion of international experience provided in Schuller and Megarry, 1979 and Jourdan, 1981). Much of the impetus for the clarification of the debate and the canvassing of recurrent education policies has been provided by the OECD through its Centre for Educational Research and Innovation (CERI).

The OECD and Recurrent Education

During the late 1960s and early 1970s, the OECD was not the only international organization to be involved in the promotion of ideas concerned with lifelong learning. Both Unesco and the Council of Europe played active roles through elaboration of the concepts of lifelong education and *education permanente* respectively. However, it was principally through the auspices of the OECD that the concept of recurrent education as a strategy to facilitate lifelong learning came to be elaborated, refined, and widely debated. In common with Sweden, the early OECD work on recurrent education focused on the comparative equity implications of conventional (or 'front-end') education and recurrent education. This focus was clearly evident in the title of the first major OECD publication on the area: *Equal Educational Opportunity: A Statement of the Problem with Special Reference to Recurrent Education* (OECD, 1971). The priority then accorded to the role of recurrent education in promoting inter-generational equality of opportunity was reflected in the major organizational form of recurrent education proposed by that initial OECD publication: 'Recurrent education is formal, and preferably full-time education for adults who want to resume their education, interrupted earlier for a variety of reasons' (OECD, 1971:33). The emphasis in this definition upon formal, full-time education for adults attracted a number of criticisms, principally from economists such as Gannicott (1972) who argued that the potentially high cost of foregone income associated with full-time adult participation in education could involve considerable misallocation of resources.

The concept of recurrent education was broadened in the 1973 publication *Recurrent Education: A Strategy for Lifelong Learning* (OECD, 1973). In this work recurrent education was defined as:

> . . . a comprehensive educational strategy for all post-compulsory or post-basic education, the essential characteristic of which is the distribution of education over the total life-span of the individual in a recurring way, i.e. in alternation with other activities, principally with work, but also with leisure and retirement. (OECD, 1973:24)

This broadened definition reflected the incorporation of a more extensive set of objectives for recurrent education. In addition to the goal of enhancing equality of educational opportunity, recurrent education was also now supposed to 'provide better opportunities for individual development. . . and better interplay between the educational and other social sectors, including a bettter contribution to the potential necessary for economic growth' (OECD, 1973:48). Thus, by 1973 the conceptualization of recurrent education had shifted from a concentration on providing second-chance education for disadvantaged adults. The broadened conceptualization proposed that recurrent education is concerned with the whole of the post-compulsory education sector, including formal and non-formal education activities.

Both the strengths and the weaknesses of the recurrent education concept and the reasons why it has generated a large, frequently confused and often heated literature are evident in the definition proposed in the 1973 OECD publication. This definition contained the promise of an organizational structure which could lessen the isolation of formal education from the wider society, time educational participation to match individual needs and aspirations, and more effectively integrate the education and employment sectors. In addition, the organizing principle of recurrence appeared to provide a coherence and clarity which other, more piece-meal educational reforms lacked. At the same time, it was the very breadth of the concept, arising from the implications for the non-education sectors of society and for the whole range of post-compulsory learning activities, that caused others to react in a critical fashion. At best, the wide-ranging and diffuse nature of the concept was bemoaned because of the analytical difficulties involved (Stoikov, 1975), while at worst these qualities were the basis of attacks that the recurrent education concept was dangerous because it distracted from the evaluation of specific policy proposals (Blaug and Mace, 1977).

The prospect of reactions such as these was anticipated in the 1973 document and was responded to in two main ways. First, it was argued that it was up to individual countries to refine the broad definition of recurrent education and develop specific programs in the light of local

needs and circumstances. Secondly, it was contended that recurrent education was not a ready-made implementable alternative to the conventional education system. Rather, it was argued:

> Recurrent education is a proposal for an educational strategy embracing the full array of present educational provision . . . It is a *long-term planning strategy* and not a proposal for sudden radical change. (OECD, 1973:12)

Such arguments, although blunting some of the criticisms of the 1973 formulation of the recurrent education concept, did not resolve the issue of the policy format which the planning strategy of recurrent education would initially take. By the mid-1970s, it was possible to detect in the OECD literature two major types of policy proposals being canvassed which, although raised in the context of general economic and educational development, were consistent with the recurrent education definition outlined previously. First, there were suggestions for the reform of educational provision for the 16–19 age group to facilitate the alternation of education and employment and the undertaking of part-time education and part-time employment concurrently (OECD, 1975). This emphasis on the 16–19 age group could have reflected the fact that many of the difficulties in the tertiary sector during the 1960s which had stimulated discussion of recurrent education, such as student alienation and criticisms by some employers of students' attitudes and skills, had by the early 1970s become increasingly evident in the secondary school sector (Husén, 1979). Such concerns were reflected in calls for the abolition of the formal schooling process itself (Illich, 1970) and were sharpened by a rapid growth in youth unemployment from the early 1970s in most OECD countries. Under such circumstances, proposals to restructure the upper secondary school along recurrent principles were increasingly attractive. The focus on the upper secondary school age group may have also reflected the fact that in comparison with most other post-compulsory educational sectors, the upper secondary school was in most OECD nations more unified in an administrative sense and thus more open to centrally directed reforms along recurrent education lines.

A second major policy thrust evident in the OECD literature from the mid-1970s was the instrumental role which educational leave from employment may play in facilitating participation in recurrent education and training activities (OECD, 1976, 1978). This thrust reflected the need perceived within the OECD for a more effective integration of the education and labour market sectors (Kallen, 1979), a need that was

sharpened by the rapid deterioration in the economies of OECD nations over the latter 1970s. It is somewhat ironical therefore that, while much of the interest in recurrent education came from its potential as a means of coping with economic difficulties, it was these same economic problems which came to be seen as a barrier to the introduction of recurrent education policies:

> The priority given by OECD governments to the fight against inflation suggests restrained demand policies coupled with budgetary constraints and cuts in the public sector . . . over the next few years . . . It would thus seem that the prospects for any major new public expenditures in recurrent education in the 1980s are not very promising (OECD, 1980b:1).

Within the OECD itself, work on projects under the recurrent education title began to be phased out about 1980, but the perspective of recurrent education continues to influence much of the OECD work on education and the economy.

Lifelong Education and Permanent Education

As with recurrent education, development of the concepts of lifelong education and permanent education (*education permanente*) was associated with international agencies, namely Unesco (1972) and the Council of Europe respectively. The three terms share a common philosophical basis which recognizes the necessity for lifelong learning and the need for the 'vertical integration' of educational opportunities over the life of the individual. An essential feature of recurrent education is that 'educational opportunities should be spread out over the individual's lifetime' (OECD, 1973:5). Lifelong education is a process of accomplishing 'personal, social and professional development throughout the life span of individuals' (Dave, 1973:34). Permanent education asserts that 'education is, and should be seen to be, a lifelong process' (Jessup, 1973:16).

The frequency with which advocates of each concept coincide in the use of descriptors such as 'openness', 'participatory', and 'the closer integration of education with work' appears to support the contention of Lawson (1978) that the terms are broadly equivalent. However, the contexts in which each of the terms have been employed by their respective proponents indicate differences in the scope of the objectives to which each term is addressed, and differences in the envisaged role of the formal education sector in achieving such objectives. As Kallen (1979) argues, although they often share overlapping memberships, the

international organizations which fostered the development of each term differ significantly in their primary objectives. The OECD is concerned principally with the economic development of the western industrialized nations; Unesco has as a high priority the social and political development of the world's poorest nations; and the Council of Europe is a vehicle to promote the cultural integration of Europe. Given these differences in orientation, it is not surprising that, in comparison with the usage of the other two terms, recurrent education has a stronger orientation towards the strengthening of links between the education and labour market sectors.

In terms of the role of the formal education sector in promoting lifelong learning, Kallen (1979) perceives in the lifelong and permanent education literature a stronger thrust towards extending the role of the traditional adult education sector than is evident in proposals for the implementation of recurrent education. Recurrent education proposals, although recognizing the importance of the adult education sector, tend to attribute to it a less instrumental role. The recurrent education perspective tends, to a greater extent, to encompass reorientation towards recurrent principles of all levels of education, including formal and non-formal sectors:

> The introduction of recurrent education . . . must be part of a wider policy for educational change in which all types and levels are carefully co-ordinated . . ., will necessitate reforms in curricula and structure, both at the compulsory and non-compulsory level . . ., and also implies bringing upper secondary and post-secondary education together into one flexible and integrated system. (OECD, 1973:52)

Notwithstanding the preceding discussion, it should not be inferred that the distinctions between recurrent, lifelong, and permanent education are sharp. Each concept and its associated terminology came into operation at a similar time and in response to a common perception of a need to overcome some of the limitations of the conventional education system. Differences in the philosophical basis of each concept tend to be matters of degree rather than substance. The differences become more marked when attempts are made to put into practice the concepts underpinning the three terms. It is at this point that, in comparison with the other two terms, the usefulness of the recurrent education concept is most apparent. The explicit reference in recurrent education to the alternation of education with work and other activities endows it with an operational clarity that the other terms lack.

Recurrent education also has a stronger intuitive appeal than either lifelong or permanent education. If one accepts that 'education' refers to structured learning undertaken in a deliberately created context, then aside from unusual circumstances, education could not be a permanent, lifelong activity. While it is doubtful that proponents of either permanent or lifelong education do in fact envisage that individuals should have a never-ceasing involvement in educational activities, both terms as used in the English language raise such connotations. The episodic nature of education implied by the word 'recurrent' means that, of the three terms, recurrent education is less likely to cause negative responses such as the article entitled 'The spectre of permanent schooling' (Williams, 1974).

Perhaps the most satisfactory means of easing any terminological confusion between the three terms has been proposed by Duke (1976). He suggests that, because of the overlapping philosophical basis of each term and the greater operational clarity of recurrent education, it is appropriate to view recurrent education as the strategy to implement the goals of lifelong education and permanent education. In essence this is the position adopted in this review. In pragmatic terms it means that, in addition to the recurrent education literature, the review draws upon relevant studies which have either lifelong education or permanent education as their primary focus.

The Recurrent Education Concept in Australia

As a member of both the OECD and Unesco, Australia saw the introduction of the terms 'recurrent education' and 'lifelong education' into educational debate in the 1970s. However, a number of the concepts underlying these terms had been evident in Australia over many years. Ely (1981), for example, traces the impact of ideas about continuing education on the formation of mechanics institutes in many Australian centres during the nineteenth century. Whitelock (1974) provides an extensive discussion of the many voluntary adult education organizations that have operated and continue to operate in Australia. The formal education sector has also had a long involvement in educational programs for adults. In the technical education sector, many courses have been and continue to be largely geared for part-time enrolments, and several universities have provided adult education and extra-mural courses for many years.

Perhaps the most striking Australian example of a program which embodied many aspects of recurrent education was the Commonwealth

Reconstruction and Training Scheme (CRTS) which operated for ex-service personnel from 1944 to the early 1950s. The scheme provided free tuition and living allowances, and did much to boost the facilities of technical institutions and universities over the period. By 1949, almost 50 000 CRTS students had completed their courses and a further 150 000 were in training (Fitzgerald, 1975). The majority of the CRTS students enrolled in technical colleges but a significant number studied at university. Between 1945 and 1947 for example, the number of Australian university students doubled to 28 000 and almost all of this increase was attributable to the CRTS.

Despite the evolution of individual educational programs and organizations with some of the characteristics ascribed to recurrent education, it was only in the early 1970s that systematic discussion began on recurrent education as a general organizational principle for the Australian education system. This discussion received a major impetus from the publication in 1974 of a report on the needs of Technical and Further Education (TAFE) in Australia (Kangan, 1974). In this report, for the first time in Australia at a semi-official level the potential of recurrent education was canvassed, and broad strategies were proposed for its implementation. The report placed particular emphasis upon broadening access to technical and further education opportunities by the lessening of formal entry requirements and the facilitation of educational leave from employment.

The full sweep of the Kangan Committee's views on the desirability of implementing recurrent education in Australia and the instrumental role of paid educational leave in that implementation were not accepted at an official government level. The federal government did however commit itself to a significant expansion of facilities and programs in the TAFE area and implicit in the expansion was the acceptance of a number of the needs of adult learners identified in the Kangan report.

Another indication of semi-official endorsement of a number of the principles underlying recurrent education was the report of the Committee on Open University (Karmel, 1975). In this report it was recognized that an important long-term goal is the development of structures and processes which facilitate the integration of education with other activities, including employment:

> Formal education should no longer be regarded as a preparation for life, but at least beyond the compulsory level, it should be integrated with life itself. Educational experiences could then extend over a person's lifetime with the

individual moving back and forwards between educational programs and work, or operating concurrently in both spheres, according to desire and need. In such a society, education would be recurrent. (Karmel, 1975:9)

The definition of recurrent education adopted by this Committee went further than the concept developed to that stage by the OECD in that it made specific reference to the concurrence of education with work and other activities. This development reflected the long-standing involvement of Australian post-school education with the provision of part-time courses for those with full-time employment, and also opened up the prospect of combined part-time work and part-time education programs, a development which had hitherto been little explored in Australia.

As was the case with the Kangan report, a major emphasis in the Open University document was the role which the easing of access to tertiary education could play in the promotion of lifelong learning. Unlike the Kangan Committee, the Committee on the Open University ruled out the facilitation of access through the removal of minimum educational requirements altogether, arguing that such policies could prove costly in both personal and financial terms. Rather, the Committee focused upon the easing of access for those with the capacity to participate effectively in tertiary education but who were unable to take up such opportunities by reason of geographical location, employment, and other commitments.

Interest by educators in recurrent education in Australia has not been confined to the reports of official committees of inquiry. Recurrent education has been the principal topic at several major conferences (Duke, 1978 and Hewitson, 1982) and in 1977, research into recurrent education was designated a priority area by the then Education Research and Development Committee (see for example, Barnett, Swain, Abrahams, and Sheldrake, 1979). The potential of recurrent education programs for promoting labour market flexibility has also attracted the attention of non-education sector groups such as the Committee of Inquiry into Labour Market Training (Cochrane, 1974). More recently, such interest has been sharpened by concern over the potentially adverse effects of technological change upon employment. Thus, the Committee of Inquiry Into Technological Change in Australia urged that, as part of government policy towards technological change,

. . . education, training and retraining must be available to all during any period of significant technological change, and techniques must be

developed to ensure that less-well-educated workers can participate. (Myers, 1980:103)

Despite the widespread and generally favourable discussion in Australia of the recurrent education concept, the debate has remained at a fairly global and abstract level, and the question remains of the form which recurrent education policies may take in the Australian context. In particular, what has proved difficult to clarify is the relationship between recurrent education and the existing education and training sectors of both a formal and non-formal kind. Would recurrent education, if implemented, constitute an additional sector, or would it provide an organizing principle for all activities which involve the education and training of adults, or would it rather constitute a series of special programs incorporated within the existing range of activities? One of the major reasons for a lack of clarity on these issues is the difficulty of identifying the key elements underpinning the recurrent education concept.

The Parameters of Recurrent Education

For analytical purposes, there is a clear need to identify those characteristics of recurrent education which can be translated into specific program proposals. What is proposed is to take one generalized definition of recurrent education and distil from it the key attributes for this purpose. The definition to be employed for this purpose was proposed by Stoikov:

> Recurrent education . . . is a global system containing a variety of programs which distribute education and training at different levels (primary, secondary and tertiary) by formal and informal means, over the l. espan of the individual in a recurring way, that is, alternated with work and other activities. (Stoikov, 1975:5)

The Stoikov definition is appealing because it captures the full range of proposals advanced under the label of recurrent education. This appeal is reflected in its adoption in the economic analyses of Simkins (1976) and Cutt (1978). However, in this review it is proposed to concentrate the discussion on a subset of the Stoikov definition. The pruning involves three main areas: an emphasis on recurrent education programs rather than a global recurrent education system; a concentration on post-compulsory education and training; and a focus on formal programs.

The decision to restrict the study to a subset of the Stoikov definition of recurrent education has, aside from its pragmatic utility, the

advantage of focusing the review on the mainstream of the recurrent education debate. As discussed earlier, recurrent education has come to be seen as a long-run planning strategy rather than as a fully developed alternative to the present education system. Accordingly, it is more consistent with the literature to focus on programs with recurrent education characteristics than on a global system. Similar considerations apply to the decision to restrict the review to the post-compulsory education sector. There have been few proposals for the reorganization of the compulsory school years along recurrent education principles and the existence of a minimum school-leaving age limits the possibility of such reform. The major focus in the literature has been on post-compulsory education and this review reflects that focus. At the same time, the development and spread of recurrent education programs in post-compulsory education may have significant implications for the earlier school years, not least in terms of school curricula (Dave, 1973) and teacher training (Cropley and Dave, 1978).

Unfortunately, the decision to concentrate on formal education is not in accord with the mainstream of recurrent education. While the early proposals did concentrate on the reorganization of formal higher education, non-formal education came to be recognized as able to play a significant role in achieving the goals of recurrent education (Simkins, 1976). The limited treatment of informal education in this review arises because of the limited data base for that area, and not because of a view that such experiences are an unimportant component of recurrent education programs.

An interesting attempt to narrow the scope of the debate was provided by Dymond (1977) who argued that recurrent education should be regarded as a right obtained through employment and, as such, should only be available to those in employment. For those who are unemployed or outside the labour force, he argued that manpower training is the preferable term to describe programs which facilitate their access to employment. At this stage of the development of the concept, the Dymond definition is too restrictive. Significant strands in the development of the recurrent education concept have been the need for programs for those who have left employment and who wish to update their skills or embark on a completely new career (e.g. OECD, 1973), and for those who wish to return to the workforce after a long absence (see for example, Schade, 1972 for a discussion of such programs for women). It may well be that should extensive recurrent education

programs come to be implemented, there may be a separation, on administrative grounds, of programs for the employed from programs for those who are not employed. At this stage to exclude the latter from a general review of recurrent education would not do justice to the breadth of the concept.

The conjunction of education and training in the discussion of recurrent education requires some elaboration. As noted by Parrott (1976), many educators see education and training as polar extremes, with the implication that education has a positive value whereas training is a mere necessity tainted by the profit motive, and as such would have little role in a system of recurrent education. Such an argument is difficult to sustain. Aside from the difficulties of distinguishing between the educational and training components of particular programs, the thrust of recurrent education proposals has included the closer integration of education with employment (OECD, 1973). As such, it is difficult to envisage a situation where the alternation of education with work does not involve programs linked with employment either in terms of updating existing skills and knowledge or providing an orientation towards the issues associated with technological change. The extent to which a particular program comprises training rather than more general educational activities may affect the manner in which it is structured and financed, but would not of itself disqualify such a program from consideration as part of recurrent education.

In sum, this review concentrates on the discussion of formal education and training programs conducted at the post-compulsory educational level. The distinguishing feature of such programs is their recurring nature—that is, they are taken in alternation with periods spent in work or in other activities. Conceptually, such programs may be of two main types : those which involve young people deferring elements of their post-compulsory education and training, and those which facilitate the return of adults to education and training after a period of absence. At first glance, these two program types would appear to be no more than two sides of the one coin : deferral of education by a young person would almost by definition entail subsequent participation as an adult. Indeed, this is the principal focus of recurrent education as a mechanism for redistributing over adulthood a given stock of education which would otherwise have been consumed when young (OECD, 1973). Under this perspective, recurrent education is essentially a means of altering the timing of educational participation. As the concept has evolved, the element concerned with the redistribution of

educational participation from youth to adulthood has become less apparent (see for example, Kallen, 1979). In addition to the continuing emphasis on the provision of second-chance educational opportunities for disadvantaged adults, there is now a recognition of the importance of a sound initial education for young people to enable effective participation in any recurrent education opportunities that may become available during adulthood. Implicit in this perspective is the recognition that recurrent education could entail an increase in the total stock of educational provision, and not simply a redistribution over time in the availability of a given stock. One of the factors behind this shift in thinking has been the prospective problems of deferral by young people of substantial elements of their post-compulsory education. Thus, while deferral is still discussed in the recurrent education context, particularly in regard to the 16–19 age group (for example, OECD, 1975), it is now less prominent. In the discussion which follows, although the deferral strand is evident, the primary focus is upon what may be termed the return strand of recurrent education whereby adults are encouraged to return to formal education and training programs after a period of absence.

3 : THE INTERNAL EFFICIENCY OF THE EDUCATION SECTOR

Questions of efficiency of resource usage in education necessitate consideration of the relationship between the costs of education inputs and the value of education outputs. Patterns of resource usage are inefficient if the value of output could be increased without additional cost, or the same output value could be produced at lower cost, or some combination of the two (Blaug, 1970). Needless to say, the assessment of efficiency in education has proved notoriously difficult, particularly in regard to reaching agreement on the identification, measurement, and valuation of education outputs. This chapter is concerned with one particular aspect of educational output, namely the quality of student learning.

One of the major concerns which stimulated discussion on recurrent education in the late 1960s and early 1970s was the post-war trend to a steadily rising rate of educational participation by young people and a tendency for the average length of time enrolled in education to increase. In some circles, these trends caused doubts about the efficiency with which educational resources were being utilized. Edding (1981) summarized these concerns in the following manner:

> The available evidence showed that a large percentage of students and teachers were unhappy with these (educational) institutions and tended towards attitudes of resignation, frustration, passivity or bitter protest. There were high rates of repeating and dropping-out. Those who managed to graduate had learned mainly to pass examinations but had often barely internalized the educational values. (Edding, 1981:121)

Factors which it was argued contributed to the malaise in the formal education sector included problems of motivation among the young, related in part to the perceived irrelevance of many of their formal studies, and the lack of meaningful interaction between the education sector and the wider society (OECD, 1973). A central element of the argument was that the formal education sector, as conventionally organized, inhibited the integration of theory and practice in learning. The notion of recurrent education appeared to offer a means of lessening the isolation of the education sector and thus, it was hoped,

improve the efficiency of resource usage. In this task, both the deferment and the return strands of recurrent education were seen to have a role to play. If young people could be encouraged to defer some elements of their post-compulsory education, it was argued that, upon their return to education, the greater levels of motivation and experience which they would possess would improve learning performance. In a similar vein, if greater numbers of adults were provided access to the formal education sector, the practical experience which they could bring to bear on their studies would be beneficial. A further suggested advantage was that the consequent broadening of the age groups involved in education would be likely to bring cross-fertilization benefits to youth and adults alike.

Trends in Australian Post-compulsory Education

The Period to the Mid-70s

As occurred elsewhere in the industralized world, post-compulsory educational participation by young Australians increased markedly over the post-war period. In 1957, only 24 per cent of 16-year-old males were enrolled at a secondary school, while for females the corresponding proportion was 20 per cent (Williams, 1979). In the decade to 1967, these proportions doubled and, while the rate of growth in secondary school participation slowed in the ensuing decade, the 1977 participation rates for 16-year-olds, which stood at 58 per cent and 60 per cent respectively for males and females, represented a substantial development over a 20-year period. The increased participation of young people in post-secondary education in Australia over this period was even more marked. In 1957, 6 per cent of the 17 to 22 age group were enrolled in tertiary education; by 1977 this had increased to 20 per cent. The increased education participation rates for the young were a significant contributing factor to the rise in the proportion of Gross Domestic Product (GDP) flowing to the education sector. In 1957–58, only 2.2. per cent of the GDP was devoted to recurrent expenditure on education, a proportion that increased to 3.1 per cent in 1966–67 and by 1976–77 had reached 5.3 per cent (ABS, Cat. no. 5510.0).

The growth in Australian education participation rates in the two decades to the mid-70s mirrored increases which had occurred over a similar period in a number of other industrialized countries (Husén, 1979). However, the Australian growth occurred from a relatively

small base and, in terms of full-time participation at least, the Australian rates were still comparatively low. For example, in 1976 Australia ranked fourteenth in a group of 19 OECD countries in the proportion of 16- to 18-year-olds enrolled in full-time education with a proportion of 40.2 per cent compared with a group median of 49.0 per cent (OECD, 1981). Since much of the initial interest in recurrent education was stimulated by concern over the high proportion of young people engaged in full-time education (OECD, 1971), on the surface these data would suggest that such concerns may have been less pertinent in the Australian context.

The Mid-70s to the Present

A period of uninterrupted growth in educational participation by the young in Australia, stretching back some 20 years, appears to have stopped during the mid-1970s, despite some slight continued growth for some types of students and some sectors. Table 3.1 presents data on the education participation rates of 17- to 21-year-olds for 1975, 1980, and 1981; the data are classified by type of enrolment and education sector (school, TAFE, advanced education, and university). Based on the table the following conclusions can be drawn:

1 Full-time education participation rates for males aged 17–21 years declined markedly between 1975 and 1980, with a slight upturn evident in 1981.

2 Full–time education participation rates for females aged 17–21 years continued to grow between 1975 and 1980 but the rate of growth has been relatively slow.

3 The proportionate decline in full-time participation rates has been greatest in the university sector for males, and in advanced education for females.

4 The only areas in which full-time participation rates grew between 1975 and 1980 were the school sector for females and TAFE for both males and females. The latter phenomenon reflected growth from a relatively small base.

5 Part-time participation rates in the 17–21 age group remained relatively constant for the universities and advanced education sectors between 1975 and 1981. In the TAFE sector the part-time participation rates have increased, particularly for females.

The data indicate differences in the direction and range of change in participation rates between sectors and types of enrolment and particularly between males and females. In the aggregate, the data

Table 3.1 Education Participation Rates of 17- to 21-Year-Olds, Australia, 1975, 1980, and 1981 (percentage of the population aged 17–21 years)

	Full-time			Part-time			Total		
	1975	1980	1981	1975	1980	1981	1975	1980	1981
Males									
School	7.9	7.0	7.0	–	–	–	7.9	7.0	7.0
TAFE	1.8	2.5	3.0	22.2	23.1	24.7	24.1	25.7	27.7
Advanced Education	3.9	3.4	3.3	1.2	1.2	1.2	5.0	4.7	4.5
University	6.5	5.6	5.4	0.7	0.6	0.6	7.2	6.2	6.0
Total	20.2	18.6	18.7	24.1	25.0	26.5	44.3	43.5	45.2
Females									
School	6.8	7.4	7.4	–	–	–	6.8	7.4	7.4
TAFE	1.6	2.6	2.7	7.1	10.4	10.6	8.7	13.0	13.3
Advanced Education	5.5	5.1	4.9	0.6	0.8	0.7	6.1	5.9	5.6
University	4.5	4.2	4.2	0.5	0.5	0.5	5.0	4.7	4.7
Total	19.0	19.9	19.8	8.6	12.1	12.3	27.6	32.0	32.1
Persons									
School	7.4	7.2	7.2	–	–	–	7.4	7.2	7.2
TAFE	1.7	2.6	2.9	14.8	16.9	17.8	16.5	19.4	20.6
Advanced Education	4.7	4.3	5.5	0.9	1.0	1.0	5.5	5.3	5.1
University	5.5	4.9	4.8	0.6	0.6	0.6	6.1	5.4	5.4
Total	19.6	19.2	19.2	16.5	18.6	19.5	36.1	37.9	38.7

Source: Commonwealth Tertiary Education Commission (1982).

Note: The TAFE data refer to Streams 1 to 5 (vocational and preparatory courses) only. TAFE data for 1981 are not strictly comparable with those for earlier years. Comparability of totals is consequently affected.

accord with what has been termed by the Commonwealth Tertiary Education Commission (CTEC) 'the retreat from education' by young people since the mid-1970s, particularly in regard to male enrolments in schools and full-time enrolments in higher education. As some measure of the extent of the retreat, 1981 full-time enrolments by 17- to 19-year-old males in secondary schools represented an education participation rate which was almost 19 per cent lower than the peak participation rate for this group reached in 1972, and no higher than the rate which existed in 1967 (CTEC, 1982). Full-time participation in higher education by the 17–19 age group in 1981 showed a similar proportionate decline from its peak year of 1976, and stood no higher than the rate which existed in 1972. Preliminary data for 1982 and 1983 indicate a lift in

secondary and tertiary education participation rates, but it is too early to assess whether this growth can be sustained.

The possible reasons which may account for the marked change in education participation by the young have been the subject of a recent extensive examination by the CTEC (1982). Among the factors suggested as contributing to declining education participation rates since the mid-1970s were an increase in student dissatisfaction with the educational experience; a growth in perceptions held by young people and their parents that the economic returns from higher education have declined; uncertainty about the economic future which has led some to prefer the security of immediate employment; and a decline in the real value of student financial assistance.

The decline in educational participation by the young in Australia over the late 1970s echoed a similar decline which commenced in most OECD countries in the early 1970s (Hayden, 1982). However, the fact that the Australian decline occurred over a later period than in most other OECD countries, and in general represented a decline from a smaller peak level of participation, has meant some differences between Australia and overseas in the extent to which particular elements of the links between educational participation, the efficiency of educational resource usage, and recurrent education have been emphasized.

Education Participation and Education Efficiency

The particular focus of the recurrent education advocates in regard to education efficiency was the quality of learning in a post-compulsory education sector comprised largely of young people with little opportunity to relate theory and practice (Sweden, Ministry of Education, 1972). Although concerns about the internal workings of the education sector were evident in the Australian recurrent education literature (e.g. Duke, 1976), by comparison with the earlier overseas literature such concerns tended to be less prominent. For example, at a national seminar on recurrent education conducted in 1977, eight major reasons were identified for facilitating increased adult participation in education (Duke, 1978), none of which were expressed in terms of the possibly beneficial effects on the education sector. It has already been suggested that one possible reason for this focus on activities external to the education sector was the relatively low full-time participation by young Australians in post-compulsory education. A concomitant factor could be that relative to most OECD countries, Australia has had only a limited experience with manpower policies designed to facilitate labour

market flexibility (Kirby, 1981). As such, from an Australian perspective the attractions of recurrent education may have been more salient in regard to its potential for the more effective integration of education and employment, rather than for the reform of the education sector itself.

Student Dissatisfaction

There is one important respect in which the internal operations of the education sector did stimulate Australian interest in reforms along recurrent education principles. During the 1970s, evidence accumulated which pointed to extensive student discontent with the educational process, particularly at secondary level. An early and important example is provided by the 1972 survey of secondary student attitudes conducted in the Australian Capital Territory (ACT) prior to the establishment of senior secondary colleges (Anderson and Beswick, 1979). In the context of what was revealed to be widespread student dissatisfaction with the traditional structure of secondary schools, 78 per cent of students agreed that people who had left school for some years should be able to return at any time to continue their studies; 47 per cent wished to see opportunities for combining part-time schooling and work; and almost half of those who intended to study at tertiary level said that they would prefer to work for a year or two before commencing tertiary education. Although not couched explicitly in a recurrent education framework, these expressions of student desire for organizational reform were in clear harmony with many of the features of recurrent education.

One of the important issues raised through the ACT study was the perception among many students of the incongruence between their developmental needs and the structure and processes of secondary schools. This perception was also evident in a Victorian study in which a sample of 18-year-olds were interviewed about their school experiences (Wright and Headlam, 1976). Among both early school leavers and those who completed secondary school, strong dissatisfaction was expressed about the 'compulsory pointlessness' of much of the content of schooling and a yearning was evident for a more meaningful role in the wider society than the school was able to offer.

Evidence of student dissatisfaction with traditional secondary school structures in Australia was an important influence, during the late 1970s and early 1980s, on the willingness of official reports on

education (e.g. Connell, 1978; Schools Commission, 1980) to canvass organizational changes. Although not necessarily expressed in terms of recurrent education, the substance of some of the recommended changes, such as the closer integration of education and employment, the easing of barriers to access and the facilitation of re-entry to the education system, were in broad sympathy with the objectives of recurrent education.

Attrition Rates

One manifestation of student dissatisfaction with formal education structures which, it was argued, strengthened the case for recurrent education was the high rate of student attrition. If the substantial quantitative growth in the Australian post-compulsory education sector that occurred to the mid-1970s was accompanied by an increase in attrition rates, to the extent that this resulted in an increase in the costs of producing a graduate, this would be prima facie evidence of a decline in educational efficiency. However, despite evidence of the high costs associated with student attrition, particularly in higher education (Selby Smith, 1975a), long-term trends in attrition rates are difficult to identify because of the limited data collected by institutions over lengthy periods (Williams, 1979). The data which are available suggest that, although dissatisfaction with the course of study is a major contributing factor towards student discontinuation, other important factors are financial difficulties and, particularly in the case of mature-age and part-time students, the conflicting demands of work and study (Beswick, Hayden, and Schofield, 1983). When the characteristics of those higher education students who discontinued courses were compared with continuing students, it was found that the discontinuing students were less likely to be in receipt of a Tertiary Education Assistance Scheme (TEAS) allowance—and more likely to be characterized by a lack of parental encouragement to undertake higher education, a failure to be impressed by the extrinsic rewards of a higher education qualification, a government school background, and few siblings with high levels of educational participation. These results indicate the complexity of factors involved in student withdrawal decisions and suggest that dissatisfaction with the course of study is only one but nevertheless major factor. Whether the relative importance of this factor has changed over time in Australia cannot be answered with the data at hand.

Thus far, the evidence presented on the relationship between the character of the student population and the internal efficiency of the

education sector has been indirect, at best. A more direct means of addressing issues of education efficiency and education participation in the recurrent education context could be to examine the likely performance in post-compulsory education of the types of students who may be involved in recurrent education programs. As argued earlier, the recurrent education concept comprises elements of the deferment of post-compulsory education by young people and the return of adults to the system. As some guide to the likely performance of these groups, evidence on the learning success of those with similar characteristics can be examined.

Learning Performance and Recurrent Education

The major difficulty in attempting to extrapolate the learning performance of adults who participate currently in education and training programs to the likely performance of adults who may participate in recurrent education programs is the need to make due allowance for differences between the groups. Recurrent education programs which involve the deferment of elements of post-compulsory education illustrate the point. Currently, there are relatively few people who defer education voluntarily, but considerable numbers whose participation in education is delayed for a variety of reasons. Deferment implies a greater freedom of choice than does delay. One could expect different levels of motivation, experience, and financial capacity to characterize those who participate in education as adults, following a period of deferment, and those whose participation was delayed for one reason or another. Consequently, the learning performance of adults who participate in education at present may not be a reliable guide for other types of adults who may participate through recurrent education programs. As such, the implications of the studies on adult learning performance need to be assessed with caution.

Deferment and Learning Performance

Although proposals to encourage the deferment of elements of post-compulsory education for considerable periods are not as prominent in the recurrent education literature now as they were in the early seventies, the advantages of a break in an otherwise uninterrupted sequence of formal education are still accorded some weight (Schuller, 1978). Unfortunately, schemes by which students are able to defer post-compulsory education are not extensively developed either in Australia or overseas, so that judgments about the likely success of students who

defer are difficult to make. Orr (1974), in a study of the relative academic success of those English students who, having gained admission to university, chose to defer entry for a year, concluded that, both at the end of their first year at university and by the end of their third year, the late entrants had lower failure rates. However, those who deferred on average were younger, had fathers in higher status occupations, and were more likely to have attended direct grant or independent schools. Failure to control for these differences limits the wider applicability of the results.

Australian data on higher education deferment schemes are limited in spite of their rapid growth. Weaving (1978), for example, cites six universities that between them granted 956 applications for deferment in 1974, while in 1977 the total number of deferments granted by the same institutions had almost quadrupled to 3905. Weaving also presents some detailed results on the operation of the deferment scheme at the University of New South Wales (UNSW). Since 1974, only about 25 per cent of each group who deferred subsequently enrolled at the UNSW in the following year. Of those who did not enrol at the UNSW, the majority enrolled at other tertiary institutions, including some who commenced at another institution during the year of their deferment. Some of these students would have been prompted to defer because they were unable to obtain their initial preference of either course or institution. Of particular interest, however, was the large proportion of deferring students who, having gained entry to their first preference course at the UNSW, enrolled in a different course (either at the UNSW or elsewhere) following the year's deferment. In other words, the process of deferment provided students with the opportunity to rethink their original course preferences and to enrol in a course closer to their interests. While difficult to quantify, such a result has positive economic implications in terms of diminished attrition rates. Unfortunately, in practice those who subsequently re-enrolled at the UNSW experienced higher attrition rates than other students at the same year level. As some slight counterbalance, on average those who had deferred had slightly better examination results.

The generalizability of the UNSW data on deferments is limited because of the small numbers involved and the lack of statistical controls. However, when combined with the English data reported by Orr, they do lend support to the argument that deferment of higher education for relatively short periods can assist students to make more effective educational choices and, as such, can be expected to improve subsequent educational performance.

Return and Learning Performance

The issue of whether deferment can be too long because it adversely affects subsequent academic performance is also an issue for those who have been absent from the education sector for a considerable period and who have the opportunity for a second chance at education. The common issue between the two groups is the effect of ageing upon learning capacity and performance. Following a wide-ranging, authoritative review of the literature on adult learning, Knox (1977) reached a number of conclusions relevant to the recurrent education debate:

> There is a tendency for adults to overemphasize their early formal learning experience and to underemphasize their recent experience with gradual and informal learning.
> Longitudinal studies of learning ability . . . indicate a high degree of stability between 20 and 50 years of age and even beyond.
> During adulthood, as fluid intelligence decreases and as crystallized intelligence increases, general learning ability remains relatively stable, but the older person tends to increasingly compensate for the loss of fluid intelligence by greater reliance on crystallized intelligence, to substitute wisdom for brilliance.
> Age trends in learning ability are associated with such factors as physical condition, social class, personality . . . and level of education. (Knox, 1977:412, 415, 421, 422)

Although less extensive, the reviews of adult learning research conducted by Stoikov (1975) and Eaton (1980) contain essentially similar findings. The results indicate that, provided care is taken with the design of courses and the provision of appropriate support services, adults in general, even the relatively elderly, have a similar capacity for new learning as young people.

One manifestation of these general findings on adult learning capacity can be seen in studies on the academic performance of mature-age students in Australian tertiary institutions. Enrolments by mature-age students constitute one of the few growth areas in Australian tertiary education over the past 15 years. In the university sector for example, the proportion of bachelor degree enrolments aged 23 years and over increased from 25.5 per cent to 36.1 per cent between 1968 and 1981 (ABS, Cat. no. 4208.0). Among those aged 30 years and over, the rate of increase was even more rapid, rising from 8.7 per cent to 18.2 per cent of bachelor degree enrolments over the same period. A recent and extensive review of Australian studies on the academic performance of mature-age students is provided by Eaton and West

(1980) who reviewed 15 separate studies, many of them unpublished, relating to single institutions. The authors caution against hasty generalizations when comparing the results obtained from those studies with those for 'normal' students, because of the fact that some mature-age students are selected according to different criteria and a relatively high proportion enrol on a part-time basis—an enrolment category with a comparatively high attrition rate. Nevertheless, on the basis of the available data, the authors concluded:

> Whatever [mature-age students'] qualifications for entry, their performance can be described in one word: successful. As a body they tend to gain good marks, have excellent pass rates and acceptable attrition rates. In so far as comparisons can be made with normal students, they perform as well if not better. (Eaton and West, 1980:51)

Such results are important for the recurrent education debate because they provide support for the contention that age is not necessarily a barrier to effective learning. However, because those mature-age students who participate currently in higher education are a self-selected group with presumably high levels of motivation and aptitude, it should not be taken as confirmed that all adults would prove equally successful in new learning environments. This cautionary note is likely to be particularly applicable to recurrent education and training programs geared specifically for adults from low-income and educationally disadvantaged backgrounds. Unless care is taken to design programs that are sensitive to the needs and capacities of the adults concerned, significant benefits may not be forthcoming. In this regard it has been argued that, for tertiary-level courses at least, the degree of student persistence in course completion will be influenced by the degree of both academic and social integration that the student feels with the learning environment in which he is located (Tinto, 1975). Although subsequent research has suggested that other factors may also play important roles, United States evidence, which indicates that among college students the degree of social integration is negatively related with age (Pascarella and Chapman, 1983), underlines the importance of supportive social, as well as academic, structures for adult students to succeed in educational settings.

Mixed Age Groupings

In primary and secondary school settings, some limited evidence exists of the educational benefits of mixed-age groupings in which students of different ages learn from each other (Bloom, 1978). At the post-

compulsory level, the data concerning mixed-age learning environments are more sparse, although anecdotal evidence exists that administrators and staff in Australian tertiary institutions believe that mature-age students generally have a positive impact on classroom climate (Eaton and West, 1980). Thus, while there is no clear evidence that mixed-age groupings would not be educationally successful, the final outcome would most likely depend upon the characteristics of the participants and of the particular program itself. For example, adults from educationally disadvantaged backgrounds may well feel anxious and inhibited in an environment geared towards formal instruction and dominated numerically by young people with a more recent educational background.

In Conclusion

This chapter has been concerned with the relationship between the characteristics of the student population in the post-compulory education sector and the quality of educational performance achieved by the sector. As may have perhaps been expected, the clear resolution of whether a reform of the provision of post-compulsory education, so that more people participated on a recurrent basis, would be likely to improve educational effectiveness is not possible with the evidence at hand. There is evidence that the rapid growth in educational participation by the young which occurred up to the mid-seventies was associated with student dissatisfaction with conventional educational processes and structures, and that some students would have benefited if programs were available which facilitated the deferment of education. The central argument of the recurrent education advocates in this regard is that student learning performance and attitudes towards education would be more favourable if students were better able to time educational participation to meet their interests and needs. Although this argument was framed in the context of rapid growth in educational participation by the young, it is perhaps even more relevant in the climate of the decline in educational participation which has occurred since the mid-seventies. To the extent that young people have turned away from post-compulsory education because of a perceived irrelevance of educational institutions for their employment and personal aspirations, it is important to design programs to assist and encourage subsequent re-entry. This consideration is given particular pertinence by evidence that a number of young people whose academic performance at secondary school indicates a clear capacity for tertiary

study (CTEC, 1982) do not continue with post-compulsory education. Research on adult learning performance and the achievements of mature-age students provides encouragement that wider adult participation in post-compulsory education could be educationally advantageous.

4 : RECURRENT EDUCATION AND THE LABOUR MARKET

Much of the initial interest in the recurrent education concept was generated by its potential for the rejuvenation of existing educational structures and the lessening of educational inequalities. It was soon apparent that programs which involved adults in education and training activities could have considerable implications for the functioning of the labour market. In the relatively buoyant economic conditions of the late sixties and early seventies, such implications were frequently couched in terms of the need for individuals to be able to update skills and knowledge in order to cope with technological change and facilitate labour market flexibility (OECD, 1973). The advantage of recurrent education as a means of reducing the adverse impact of technological change and skill obsolescence on individual employment prospects continues to be an important theme in the recurrent education debate. However, as the economic recession has intensified, there has been an increasing consideration of the use of recurrent education programs as a macroeconomic response to continuing high levels of unemployment. Such proposals have included the use of government funds on recurrent education programs as a labour-intensive means of stimulating aggregate demand (Schuller, 1978) and participation by the employed in recurrent education as a mechanism for more equitably sharing employment (Gould, 1978).

In the discussion of recurrent education and training programs oriented towards the labour market, it is important to distinguish between those proposed as essentially short-run responses to labour market problems and those whose long-term objectives constitute a more fundamental change in the relationship between education, training, and the labour market. The former, which focus primarily on the needs of the unemployed, have their antecedents in manpower programs of the types which have operated extensively overseas, particularly in the United States. The latter, which are more innovative in their scope, are generally based on the premise that unemployment is likely to remain a problem for a considerable period, and propose the development of mechanisms to provide on-going assistance for the

labour force to cope with the demands of technological and other structural economic changes. Both types of proposals share two common threads. First, there is the view that recent and prospective labour market changes necessitate some form of government intervention to restore and protect the employment prospects of particular individuals and groups. Secondly, both types of proposals share the implicit understanding that appropriately designed education and training programs should form a vital part of such intervention.

The Growth of Unemployment

The dominating feature of the Australian labour market over the past decade has been the rapid expansion of unemployment. Between August 1970 and August 1983, the unemployment rate rose from 1.4 to 9.9 per cent, which represents an increase of over 600 000 in the number of people officially recorded as looking for work. When account is taken of the number of discouraged workers and those who would prefer to work on a full-time rather than a part-time basis, the official unemployment data almost certainly understate the full magnitude of the problem. The growth in unemployment, which is shown in Table 4.1, has not been uniform over the period, with sharp increases between 1970 and 1972 and from 1974 to 1978, a slight decline between 1978 and 1981, and a resurgence from 1982 to 1983. These episodic changes in aggregate unemployment reflect the uneven performance of the Australian economy over the same period.

Against the background of changes in aggregate economic activity which have adversely affected the employment prospects of all sectors of the labour force, structural changes have altered the relative employment positions of different industrial, occupational, age, and sex groups. Of particular relevance for the recurrent education debate are the changes in the distribution of unemployment between young people and adults. As is shown by Table 4.1, the teenage unemployment rate for both males and females has exceeded by a considerable margin the corresponding adult rates over the decade. Such disparities have prompted the development of a number of government programs to assist with the particular problems of unemployed youth. There is a risk, however, that the higher unemployment rate of youth may distract attention from the employment problems now faced by many adults. As indicated in Table 4.1, while unemployment rates for 15- to 19-year-old males continue to exceed the unemployment rate for males aged 25 years and over, since 1976 the ratio of the former to the latter has

Table 4.1 Unemployment Rates By Age Group and Sex for Selected Years, Australia, 1970 to 1983

	Males				Females				All persons
	15–19	20–24	25 and over	Total	15–19	20–24	25 and over	Total	
1970	2.9	1.3	0.7	1.0	3.6	2.0	2.1	2.3	1.4
1972	5.6	2.6	1.4	2.0	5.6	3.8	3.0	3.6	2.5
1974	5.0	2.9	1.2	1.7	6.7	3.6	2.7	3.5	2.4
1976	12.7	6.5	2.4	3.9	15.8	6.3	4.0	6.2	4.7
1978	16.5	8.9	3.5	5.5	17.2	9.6	4.8	7.5	6.2
1980	14.8	8.5	3.1	5.0	18.9	9.1	4.4	7.5	5.9
1981	11.2	8.4	3.2	4.7	17.1	8.7	4.6	7.1	5.6
1982	16.4	11.3	4.2	6.3	17.1	8.8	5.1	7.4	6.7
1983	23.0	17.2	7.1	9.9	22.2	11.5	7.0	9.9	9.9

Source: ABS, *The Labour Force.* Catalogue Nos. 6203.0 and 6204.0.
Note: As at August each year.

dropped from 5.3 to 3.2. The corresponding ratio for females has also declined over the same period, although less sharply. These data suggest that, in comparison with youth, the employment position of adults has worsened since the mid-seventies.

The differing labour market experiences of youth and adults over the course of the recession can also be illustrated by an examination of the average duration of unemployment experienced by each age group. As emphasized by Paterson (1980), the unemployment rate for a given age group is determined by the numbers commencing unemployment and the average length of unemployment experienced by the members of the group. Paterson used this conceptualization to compare the experiences of the different groups in receipt of unemployment benefits over the period 1975–78. These data indicate that, compared with adults, young people have a greater propensity to enter unemployment but tend to remain unemployed for shorter periods. Adults are less likely to become unemployed than young people but, once they enter unemployment, they take longer to find a job. For example, over the 1975–78 period, the average completed duration of unemployment for males aged less than 21 years was 11.7 weeks compared with 20.0 weeks for males aged 45–54 years and 29.3 weeks for those aged 55 and over; similar differences existed for females. By August 1983, the average length of unemployment had increased for all age groups, but the positive relationship between age and average duration of unemployment remained. For males aged 15–19, the average duration of

unemployment was 32.0 weeks, and 49.6 weeks for males aged between 35 and 54 years; similar differences existed for females (ABS, Cat. no. 6203.0).

Prospects for the amelioration of unemployment will be determined by the relationship between economic growth, productivity changes, and increases in the size of the labour force. On the basis of projected growth in productivity and the labour force, it has been estimated that annual economic growth of 5 per cent will be required to reduce unemployment by about 1 per cent per year (Blandy and Harrison, 1983). This estimate suggests that even, if a growth rate of 5 per cent could be quickly achieved and maintained, the unemployment rate would not fall to 5 per cent until about 1990. The seriousness of this scenario is underlined by the fact that a growth rate of 5 per cent is significantly above the average growth rate achieved by the Australian economy over the post-war period.

The age composition of workers in particular industries indicates that, even if significant economic growth is forthcoming, the job prospects for many adults will remain limited. As demonstrated by Moir (1981) in a study of changes in the age composition of workers in Australian industries between 1966 and 1980, older workers (which Moir defined as those aged 55 and over) tend to be over-represented in industries in long-term decline such as agriculture, water transport, clothing, and footwear. On the other hand, as shown by Kaufman and Spilerman (1981) in a study of age-occupation structures in the United States, young workers tend to be over-represented in occupations organized around emergent technologies. The fact that industries with low growth prospects tend to have an over-representation of older workers means that any factors which accelerate the decline of such industries will increase the number of unemployed adults. Moreover, the employment opportunities for older workers in growth industries will probably be limited by a lack of knowledge and skills appropriate to new technologies.

Changes over the Longer Term

The rapid growth in unemployment since the mid-seventies has provided a cutting edge to the arguments for increased consideration of recurrent education and training programs. However, the original basis for recurrent education was conceived in a period of high employment and those who are optimistic about future employment growth argue that, even if unemployment is reduced, recurrent education and training

programs will continue to be important as a means of enhancing labour market flexibility so as to take advantage of technological and other developments (Dymond, 1977). Others argue that the future shape of the economy will ensure that the major role of recurrent programs will be to provide constructive activities for those outside the labour market. Within this strand, two major positions can be identified. The pessimists suggest that technological and other structural economic changes are likely to mean that all those who wish to obtain full-time employment will be unable to do so (Peston, 1979). Those who are more optimistic about the implications of technological change argue that the consequent growth in incomes will enable increasing numbers of adults to be free of the demands of full-time employment (Stonier, 1979).

In part, the debate about the likely employment consequences of technological change revolves around the economic and political mechanisms by which any benefits from such changes are distributed among labour force members. It is beyond the scope of this review to address fully the complexity of issues involved. It is possible, however, to identify recent and prospective changes in labour markets which suggest the need for programs which will provide constructive activities for those who are either unable or who do not wish to find full-time employment, and a concurrent need for programs to enhance labour market flexibility.

A Decrease in Employment Time

The amount of time devoted to employment is governed by actions which may be characterized as either voluntary or involuntary. Although not completely voluntary for all individuals concerned, the evolution of practices and policies concerned with increased educational participation, earlier retirement, increased holidays, and reductions in regulation working hours represent collective decisions to trade off increased income for increased leisure. Involuntary reductions in employment time occur when people are unable to find employment for all the hours they would wish. Although each type of factor has varied in its intensity over time, their net impact has been to reduce significantly the amount of time likely to be spent by adults in employment.

An index of the earlier age of retirement is provided by changes in the labour-force participation rates of the mature-age population. In 1970, 91.2 per cent of males aged from 55 to 59 years were labour-force members; by 1980, this had declined to 83.3 per cent (Moir, 1981).

Even more rapid changes occurred for the 60–64 and 65-and-over age groups with declines in labour force participation rates from 77.4 to 50.1 per cent and from 22.1 to 11.1 per cent respectively. The extent to which the lower labour-force participation rates of older male workers is attributable to either voluntary or involuntary labour force withdrawal is open to debate. Whatever the dominant cause for particular people, the combination of lowered labour-force participation and a general improvement in life expectancy means that, compared with even a few years ago, an increased proportion of the mature-age population has the prospect of a lengthened period away from employment activities. For those older persons whose labour-force withdrawal was involuntary, this prospect could induce a demand for employment-related programs through which they could return to the labour force. Those who have voluntarily withdrawn from the labour force could be expected to show interest in programs of a leisure-oriented nature. Given the rapid decline in labour force participation rates among the elderly over the past decade and the projected growth in the size of the over-fifties age cohort, such pressures are likely to become considerable.

The combination of earlier retirement, increased education, increased holiday leave for much of the labour force, and a reduction in the regulation hours of work have resulted in a decline of about a third in life hours of work over this century (B.R. Williams, 1981). During the 1970s, these factors continued to operate although perhaps at a reduced pace compared with some earlier periods. Changes in average hours worked per week between 1970 and 1982 are shown in Table 4.2. Among the full-time employed, average hours worked per week have declined by less than 3 per cent since 1970, and most of the decline in hours worked by the employed has arisen from the increased proportion of part-time workers, particularly females, in the labour force (Fisher, 1982). Almost 60 per cent of the additional employment created since 1970 has been part-time, which has caused the proportion of part-time workers among the employed to increase from 10.6 in 1970 to 17.3 per cent in 1982. A further perspective on changes in the hours worked is provided in the final column of Table 4.2, where the total volume of hours worked is divided by the numbers in the labour force (i.e. the employed plus the unemployed). This measure shows a decrease of 12 per cent in the average hours worked per labour-force member between 1970 and 1982, a decline attributable in large part to increased unemployment and part-time employment.

The relevant question for the recurrent education debate is how large

Table 4.2 Average Hours Worked per Week for Selected Years, Australia, 1970 to 1982

	Employed workers			
	Full-time	Part-time	Total	Per labour force member
1970	41.1	16.7	38.5	38.0
1976	40.3	15.7	36.7	34.9
1982	39.9	15.7	35.8	33.4

Source: ABS, *The Labour Force.* Catalogue Nos. 6203.0 and 6204.0.
Note: As at August each year.

any future reductions in employment time are likely to be, and the likely spread of such reductions among labour force members. It has been suggested that the amount of non-employment time is likely to remain relatively high because of limited prospects for a rapid decrease in unemployment. However, even if the employment position improves (and perhaps as a consequence of such an improvement), it is likely that the long-run decline in average hours worked will continue, with the pace of decline governed by the balance of preferences between increased non-work time and increased income. To the extent that the amount of non-work time increases, an increased demand for meaningful alternative activities such as educational programs could be anticipated. The level and nature of this demand will be influenced by the form in which reduced working hours are made available. An appropriate illustration is provided by claims for a 35-hour working week for full-time employees. If this claim were successful and resulted in a reduction of one hour per working day, this marginal change would not increase the capacity of most employees to participate in educational programs. However, if the reduced working hours were able to be translated into a reduced working year so that 40 hours per week continued to be worked but an additional six weeks of leave were available annually, the potential demand for educational programs would be enhanced considerably.

Labour Market Flexibility

Evidence has accumulated which indicates that, over the past decade, the Australian economy has undergone a number of important changes which have clear implications for the labour market. First, the majority of the new jobs created since 1970 have been on a part-time basis (ABS, Cat. no. 6203.0). Secondly, there has been a major shift in the industrial structure of employment. Among the principal industrial groups in

1983, there were 30 000 fewer jobs in agriculture than existed in 1970 and 130 000 fewer in manufacturing, while significant growth occurred in financial services (an additional 200 000 jobs) and community services (an increase of 465 000 jobs). The net result is that the community services sector now rivals manufacturing and the wholesale and retail trades as the major sectoral employer, whereas in 1970 each of the latter sectors greatly exceeded community services as employers. Thirdly, significant changes have occurred in the occupational structure of the labour force. Between 1970 and 1983 the proportion of employees classified as tradesmen, production-process workers, and labourers declined from 35.3 to 29.8 per cent, while professional, technical, and related workers increased from 10.5 to 15.4 per cent. These broad data highlight some of the more obvious shifts which have occurred in the occupational and industrial structure of Australia over the past decade. The data also indicate that, even in a period of aggregate economic decline, certain industries and occupations will continue to expand.

The pertinent question for the recurrent education debate is the extent to which the existing mechanisms of labour-market flexibility will be able to cope with the demands likely to face the labour force. Although they disagree about the potential employment consequences of technological change, sources as disparate as the Committee of Inquiry into Technological Change in Australia (Myers, 1980) and Jones (1982) agree that the pace of technological change is likely to accelerate rather than diminish. Given that at least some of this change will be reflected in higher skill requirements in some existing occupations and the creation of new occupations, the question arises of the capacity of the labour force to adjust to these changes. Some insights are provided by Australian studies of occupational mobility conducted by L.S. Williams (1981) and Miller and Volker (1983). Among other results, Williams reaffirmed that occupational mobility tends to be greatest among younger workers while the latter study emphasized the importance of initial and additional education in facilitating occupational mobility.

The implication of these findings is that any prospective ageing of the labour force may decrease occupational mobility, but that appropriate education and training programs may facilitate labour-force adjustment. While it is difficult to be certain about the prospective age composition of the labour force, not the least because of the problems of projecting labour-force participation rates, current indications are that some

Table 4.3 Age Distribution of the Australian Population 1971 and 1976, and Projected Age Distribution 1981 to 2001

Age group	1971	1976	1981	1986	1991	1996	2001
	%	%	%	%	%	%	%
0–4	9.6	8.9	7.6	8.0	8.2	8.0	7.6
5–14	19.2	18.2	17.3	15.5	14.8	15.4	15.4
15–19	8.7	9.0	8.7	8.4	7.8	6.8	7.1
20–24	8.6	8.4	8.7	8.3	8.1	7.5	6.6
25–29	7.3	8.4	8.3	8.4	8.1	7.8	7.3
30–39	12.1	13.0	14.8	15.7	15.6	15.5	15.0
40–49	12.3	11.0	10.5	11.5	13.1	13.9	14.0
50–59	9.9	10.1	10.1	9.2	8.9	9.8	11.3
60–64	3.9	4.2	4.1	4.4	4.2	3.7	4.0
65 and over	8.4	8.9	9.7	10.5	11.3	11.7	11.6
Total population (000s)	12 756	13 916	14 927	16 007	17 169	18 298	19 365
Median age (years)	27.7	28.3	29.6	30.8	31.9	33.0	33.9

Source: ABS, *Year Book Australia.* Catalogue No. 1301.0; *Projections of the Population of Australia 1981 to 2021.* Catalogue No. 3204.0, November 1982.

Note: Projection Assumptions (Series B)
1 Net immigration of 75 000 persons per year.
2 Total fertility rate recovers to 2110 by 1987 and thereafter constant.

ageing of the Australian labour force may be expected. The broad parameters of labour-force change are provided by Table 4.3 which includes a projection by age group of the Australian population to 2001. These projections are based upon the series B projections published by the Australian Bureau of Statistics in November 1982. This series has been used because the net level of immigration which it assumes, namely 75 000 persons per year, is relatively close to the ceiling immigration target announced by the Commonwealth Government in May 1983. Although the official population projections will be revised as more recent fertility, immigration, and mortality data become available, it is unlikely that the major characteristics of Australia's demographic future, as outlined in Table 4.3, will change significantly. The proportion of the population in the age group in which labour-force participation rates tend to be highest, namely those aged from 35 to 44 years, is projected to increase from 12.2 per cent in 1981 to 14.8 per cent by 2001. Another indication of prospective labour force ageing is provided by Sams and Williams (1983) who project labour-force participation rates by age group and estimate that, by 2001, the labour-

force distribution will peak in the 35 to 44 age group, whereas in 1981 the peak was in younger age groups. An important influence on the ageing of the labour force will be the level of immigration. Because immigrant labour force members tend to have a lower median age on arrival than the non-immigrant labour force, the higher the level of immigration, the slower the rate of labour force ageing (Borrie, 1982). To the extent that labour force ageing eventuates and diminishes labour force flexibility, there will be an increased need for updating and retraining programs which can assist the speed of response to new job requirements. Keogh (1982) has examined these arguments in the context of the teaching profession, and studies for other occupational groups would be necessary to identify areas of greatest need.

Parenthetically, the shifts in the age structure of the population that are implied by the projections shown in Table 4.3 suggest an increasing capacity to fund such programs. The proportion of the population in the age group which has traditionally been the focus of most educational expenditure, namely those aged from 5 to 19 years, is projected to decline from 26 per cent in 1981 to 22.6 per cent in 1991 and 22.5 per cent by 2001. These projections suggest the possibility of increased resources being made available for recurrent education and training programs without an overall increase in the share of resources devoted to the education and training sector.

The preceding discussion suggests that, on the basis of recent and prospective trends in the Australian labour market, there is likely to be an increasing demand for three major types of recurrent education and training: programs designed to assist the unemployed and those who have involuntarily withdrawn from the labour market to gain employment; programs to enhance labour force flexibility; and programs which aim to provide constructive activities for those with reduced time spent in employment.

Education and Employment

The view that appropriate education and training can assist the acquisition of employment and the prevention of unemployment is generally based on the comparative labour-market experiences of individuals with different levels of formal education. The well-educated tend to incur less unemployment and earn higher incomes than those with fewer educational qualifications. Aggregate data on the education-unemployment relationship are shown in Table 4.4, where it can be seen that those with post-school qualifications on average incurred a lower

Table 4.4 Educational Attainment and the Unemployed, Australia, February 1982

	With post-school qualifications			Without post-school qualifications		
	Degree or equivalent	Trade, technical level	Total	Attended highest secondary level	Did not attend highest secondary level	Total
Males						
Unemployment rate (per cent)	2.3	2.9	2.7	6.8	8.1	7.8
Average duration (weeks)	20.6	31.0	29.0	22.3	37.5	34.9
Females						
Unemployment rate (per cent)	7.7	7.2	7.3	10.6	9.5	9.7
Average duration (weeks)	12.8	20.4	19.4	20.1	31.8	29.2
Persons						
Unemployment rate (per cent)	3.9	4.3	4.2	8.2	8.7	8.6
Average duration (weeks)	15.9	25.2	23.6	21.2	35.0	32.4

Source: ABS, *Labour Force Status and Educational Attainment.* Catalogue No. 6235.0.

unemployment rate and a shorter duration of unemployment than those who lacked post-school educational qualifications. At a less aggregated level, a study of 17-year-old Australian youth conducted by Williams, Clancy, Batten, and Girling-Butcher (1980) found that, other things being equal (including achievement in literacy and numeracy), those with more years of completed schooling tended to take less time to find a job, to incur a lower unemployment rate, and to obtain a higher status job.

A related perspective on the education-employment relationship is provided by data on the relative earnings of different groups in the labour force according to the level of educational qualifications. The general pattern identified by many overseas studies is that the more educated tend on average to have higher commencing earnings, a more rapid earnings growth rate, and earnings which peak at a later age than the less educated (Cohn, 1979). The relatively small Australian

literature on the education-earnings relationship is consistent with this pattern (Blandy, Hayles, and Woodfield, 1979).

The existence of a positive relationship between education and earnings does not of itself justify increased expenditure on education. It is also necessary to consider whether the likely benefits of additional education outweigh the anticipated costs and, if so, whether the benefit-cost ratio is more favourable for education than for other areas of expenditure. One means of ranking the attractiveness of different types of expenditure is by the rate of return which they are likely to generate. The most recent Australian application of this technique is by Miller (1981) who used 1976 census data to estimate the likely private rate of return to different levels of education. These estimates are private rates of return because they relate anticipated private benefits from education (namely the difference between the earnings associated with adjacent levels of education after adjustment for income tax) with the private costs of education (books, fees, and the net earnings foregone by participation in full-time education rather than in full-time employment). The estimates calculated by Miller indicate high private rates of return to educational investments in Australia. For example, the private return on the investment by a 15-year-old in continuing for an additional year at secondary school is estimated to be around 10 per cent and about 15 per cent for the completion of a bachelor's degree. Investments by 15- and 16-year-olds in apprenticeships produce even higher estimates, principally because the part-time basis of apprentices' participation in formal education substantially reduces the opportunity costs of that participation. The only major area of formal educational activity which appears to produce a low private rate of return is the increment from an undergraduate to a postgraduate degree, in large part because of the considerable earnings foregone through full-time participation in higher degree studies.

Data of the type presented by Miller constitute a strong prima facie economic incentive for young people to persist with their education, although there is more recent evidence of a decline in private rates of return to education in Australia (CTEC, 1982). There are two major reasons, however, why high private rates of return do not of themselves necessarily constitute an economic case for government expenditure on recurrent education programs. First, the private returns to education may exceed the social returns and it is the latter which are (or should be) relevant to government expenditure. Secondly, the data pertain to the expected rate of return on educational participation by young people, whereas recurrent education programs focus on adults.

The Social Rate of Return

In Australia, because only a small proportion of direct education costs such as the provision of teachers, buildings, and equipment are incurred by students, the social rate of return on educational investments would be lower than the private rates estimated by Miller (1981). This conclusion accords with the relative size of the private and social rates of return identified in the overseas studies reviewed by Psacharopoulos (1981). As a possible counter balance, private rates may underestimate social rates because the earnings data from which the estimates are made do not include benefits which flow to other individuals. These wider benefits, which are termed 'positive externalities', may include the income gains of other persons, the income gains of subsequent generations as the result of a better-educated current generation, the stimulation of research, development, and labour market flexibility, and a range of less directly pecuniary benefits such as the reduction of crime and the enhancement of political stability (Bowen, 1978). However, the conceptual and empirical difficulties of identifying and measuring educational externalities suggest that the economic justification for recurrent education and training programs cannot rely on their potential external benefits. It is possible that programs which concentrate on educational provision for adults may generate higher external benefits than programs for young people but, given our present state of knowledge, such benefits cannot be assumed.

A more fundamental way in which private and social rates of return may diverge is related to the process by which educational qualifications are associated with increased earnings. Under what has been termed the 'human capital theory' of the education-earnings relationship, it is argued that education increases productive skills and knowledge, and thus is rewarded by increased earnings. A competing view, generally termed the 'screening theory', argues that the correlation between education and earnings is explained by the fact that those individuals with desirable employment characteristics are more likely to succeed in the education system and the certification they receive signals to potential employers that they are profitable recipients of on-the-job training (Arrow, 1973).

An extension of the screening theory is that it is not so much individuals who are productive, but rather that there are some jobs which are more productive than others or which provide a richer mix of training and advancement opportunities (Rosen, 1976). Accordingly individuals will compete for these jobs by forming a 'job queue'

(Thurow, 1972) and employers will choose those at the top of the queue, namely those with the highest educational credentials, since in general the more educated require fewer training costs. As the overall level of education in the job queue rises, there is a greater incentive for individuals to differentiate themselves by acquiring higher levels of education, particularly in those education systems which are largely government financed. The theory implies that educational expenditure yields a private return much higher than the social return (Vinokur, 1976).

A major difficulty in the assessment of the screening hypothesis is the conceptualization and design of appropriate empirical tests of the theory. Psacharopoulos (1981) reviews a number of studies of labour markets which indirectly refute the hypothesis. On the other hand, evidence that some sectors of the labour market are subject to screening-type pressures is implied by the work of Rumberger (1981) who demonstrated that, among higher-level occupations in the United States at least, the average level of educational qualifications possessed by employees exceeded by a considerable margin the level of education judged necessary to perform the tasks involved.

The conceptualization and measurement of the process by which education is associated with higher earnings is a complex matter that is far from resolved. It may well be that further work will reveal that the human capital and screening theories of the education-earnings relationship are not really competing theories of the overall process in the labour market, but rather will apply to greater or lesser degrees in particular subsections of the labour market (Sorensen, 1978). However, the issue remains an important one in the context of recurrent education since, to the extent that the screening function of education is predominant, any expansion of educational participation through recurrent programs may exacerbate the pressures for credentialism in a way that is not socially useful. As it has been expressed by Gannicott (1973):

> Is [recurrent education] merely the latest currently fashionable scheme for encouraging people to run faster on the treadmill and whose outcome will not be a gain in welfare in any absolute sense? (Gannicott, 1973:2)

Despite the importance of this question, it has thus far received only limited treatment in the recurrent education literature. Levin (1978) argues that, because recurrent education programs would assist deferment of education participation by the young, there could be fewer young people entering the labour market with high educational

qualifications and thus be less pressure on employers to select among applicants solely on the basis of certification. Vinokur (1976) contends that screening theories support the case for recurrent education, since such theories emphasize the importance of on-the-job experience, and recurrent education implies an increased emphasis on the integration of education with employment. It is difficult to resolve such issues without reference to the characteristics of particular recurrent education programs and the economic environment in which they are implemented. If recurrent education opportunities were to be disproportionately utilized by the already well-educated in order to provide a competitive edge in the labour market, the trends towards credentialism could accelerate. However, even if programs were focused on increasing the general level of education among those with low initial education, in an economy in which the growth in employment opportunities did not keep pace with the increased supply of educated labour, such programs may simply rearrange the job queues, perhaps in a more equitable manner, but with little consequent growth in aggregate employment or productivity.

Adult Participation in Education and Earnings

Few studies of the education-earnings relationship have made allowance for the effect of undertaking education at different ages. Accordingly, economists who have examined this aspect of recurrent education have been forced to make a number of simplifying assumptions. In common with the early emphasis in the literature, much of the economic analysis of this question has concerned the deferment strand of recurrent education. Gannicott (1972) attempted to assess the likely difference between the age-earnings profile of an 18-year-old who proceeds directly to higher education and the earnings of an otherwise identical individual who defers undertaking higher education for a number of years. He argued that, because young graduates would have had the benefits of gaining on-the-job experience and training relevant to their pre-employment study, they would always possess an earnings advantage over those persons who, because of education deferment, had graduated at a much later age. The longer the period of deferment, the greater the likely loss since deferment reduces the time period over which any earnings benefit associated with education can be reaped. On this basis and the higher opportunity costs associated with education at a greater age, Gannicott calculated that the likely social rate of return on the investment in a graduate who had deferred participation in

education for 17 years would be only about 3.8 per cent compared with an average of 6 per cent for a graduate who commenced higher education at the age of 18 years.

The Gannicott analysis was challenged by Stoikov (1975). He argued that a person who participated in education after a long period of employment experience would enjoy a more effective educational experience than a young person who proceeded to higher education direct from secondary school, and that prior employment experience would facilitate a more effective utilization of education in subsequent employment. The net result is that Stoikov assumes that the age-earnings profile of the graduate who had deferred entry to higher education would, after graduation, match the profile of the person who had undertaken education at a younger age. The effect of this assumption is to reduce significantly the costs associated with education deferment.

Cutt (1978) neatly summarized the difference between the Stoikov and Gannicott approaches:

> The argument on the complementarity of work experience and education seems to be used by Stoikov in favour of the recurrent education option, and is certainly used by Gannicott in favour of the front-end education alternative. (Cutt, 1978:13)

The little empirical evidence which is available would appear to support Gannicott's rather than Stoikov's assumption about the age-earnings profile of a person who defers education for a considerable period. Weiss and Lillard (1978), in a study of the United States labour market for science PhDs, found that the greater the age at which the doctorate was obtained, the lower the rate of growth in postgraduate earnings. Mincer (1974) estimated that at least 25 per cent of the income differential for college graduates was attributable to post-graduation learning investments by both the graduate and the employer, which implies that the younger the age at which post-graduation employment commenced, the more rapid the growth in earnings.

The clear resolution of this issue requires data on the educational and labour market performance of substantial numbers of individuals who have postponed elements of post-compulsory education. In the absence of such data, the inference from the material available is that the positive relationship between level of educational attainment and on-the-job learning favours the acquisition of education at as early an age as possible. In the Australian context, this conclusion is reinforced by the structure of the labour market for young people. The inverse

relationship between age and unemployment rates and the fact that the general structure of award wages for youth increases wages in line with age combine to provide a strong economic case against a substantial period of deferment of education by young people. There are two major exceptions to this conclusion. First, for some people a break between formal studies would allow the acquisition of career and self-knowledge which might lessen the risk of making potentially costly choices of inappropriate educational programs (Ribich, 1974). Secondly, under conditions in which widespread obsolescence of skills and knowledge is threatened by technological and other structural changes, it may be costly to acquire skills with a potentially short economic lifespan (Simkins, 1976). However, because of the role which a high initial level of general education can play in anticipating and adjusting to change, this suggests deferment of the more narrow and specified components of an educational program, rather than of the whole program itself.

Retraining Programs

In situations for which a shortage of necessary skills is the major impediment to gaining employment, appropriate education and training programs for adults can prove cost-effective. Such programs, which have been termed 'curative', were developed on a wide scale in the United States during the sixties. Despite some methodological difficulties in assessing the effectiveness of these programs, the general consensus was that they were able to provide cost-effective assistance to the unemployed in obtaining jobs (Wood and Campbell, 1970). A more recent verification of this assessment is provided by Schiller (1978) who examined the 1973–75 experiences of the Work Incentive Program. Of particular relevance in the current economic climate is the finding that the program was most successful in localities in which unemployment rates were relatively low. In high unemployment areas, the program may have improved the position of the program participants in the job queue, but it did not, and could not, reduce the length of the queue. Given that in February 1983 there were more than 40 unemployed persons for each registered job vacancy (ABS, Cat. no. 6231.0) and a July 1982 survey found that less than 8 per cent of the unemployed cited 'a lack of necessary education or skills' as the major difficulty in obtaining jobs (ABS, Cat. no. 6221.0), training programs of themselves cannot be expected to significantly reduce unemployment. The difficulties faced by any retraining program in a period of rapidly rising unemployment contributed to the assessment by Teicher (1978) that the

National Employment and Training (NEAT) scheme initiated in 1974, although successful in creating jobs for a number of unemployed people, probably had its greatest impact on the redistribution of unemployment.

Proposals for labour-force recurrent education and training programs go beyond remedial programs to assist the unemployed to return to employment. The most innovative element comprises proposals which may be termed 'preventative' in that they attempt to assist workers to anticipate and adjust to changes in their working environment which may adversely affect their employment prospects. Perhaps the clearest conceptualization of the need for such programs was provided by Mushkin (1966) who argued for institutional arrangements to provide an on-going updating of labour force skills and knowledge necessary to cope with technological and other structural economic changes. Neither employees nor employers may have the necessary motivation and capacity to develop such programs on their own volition. Individual employees threatened with unemployment are unlikely to have the capacity to finance participation in education and training programs. The position of employers is more complex. Becker (1964) proposed that a distinction needs to be made between general and specific training provided by employers. General training tends to raise employee productivity in a number of enterprises whereas specific training increases productivity only in the current place of employment. Accordingly, while employers will be willing to provide specific training since some of the productivity gains of that training will be appropriated by the enterprise, general training will only be provided if the trainee is paid a wage lower than his marginal productivity either during or after the training period, or if it is possible to contract the recipient of general training to remain with the enterprise for a specified period. The difficulty of enforcing either requirement means that employers have few incentives to provide general training programs. Niland (1974) argued that this is accentuated in Australia because (except in the case of apprentices) the structure of award wages makes no provision for a lower level of wages during the training period.

Given that structural factors limit the prospects of employees obtaining training opportunities in areas other than those which are specific to current employment, Mushkin (1966) proposed that 0.5 per cent of the annual wages bill should be contributed by each of employers, employees, and government to finance a form of sabbatical leave for all employees aged 35 years and over, particularly those in

need of retraining to cope with skill obsolescence. In principle, such a scheme could integrate the existing diversity of unemployment payments, training subsidies, and other forms of income support into a coherent policy framework. However, in the absence of macroeconomic policies to maintain appropriate levels of aggregate demand, such schemes would not of themselves necessarily lessen the numbers of unemployed, although the burden of unemployment might be shared more equitably.

Recurrent Education as a Macro-economic Strategy

Government expenditure on recurrent education programs has been proposed as a counter-cyclical means of maintaining aggregate demand and employment (Schuller, 1978). On the demand side, expenditure on recurrent education and training programs may stimulate the employment of education and training personnel (Stonier, 1979). Labour supply could be reduced either through programs for the unemployed or through the unemployed replacing the employed who participate in recurrent programs, or some combination of both (Gould, 1978).

The attractiveness of expenditure on education as a means of stimulating employment is that education is a relatively labour-intensive activity. However, in the short term, it is unlikely that increased recurrent education expenditure would directly stimulate significant additional employment. There is little evidence to suggest that significant numbers of the unemployed would be in a position to move to the education and training sector to meet increased demand for personnel. Among those unemployed in February 1982, only 24 per cent possessed some form of post-school educational qualification (ABS, Cat. no. 6235.0), and it is unclear how many of these would be willing or able to become involved in the provision of recurrent education and training activities. A more likely response, in the short term at least, would be that additional demand for personnel to provide recurrent education and training programs would encourage the return to the labour force of people who had formerly been involved in the formal education sector. While this may be considered a beneficial outcome for a number of social reasons such as assisting females to return to employment, it may do little to assist the unemployed directly. In addition, since average salaries in the education and training sector exceed average salaries in the rest of the labour force, a given increase in expenditure on that area would create fewer new jobs than would

expenditure on other areas of labour force activity, other things being equal.

An important influence on the extent and distribution of any employment-creation implications of expenditure on recurrent education and training programs will be the mechanisms used to finance such programs. For example, a compulsory levy on employers based on payroll size may discriminate against labour-intensive industries and provide a disincentive to take on additional labour. As a general consideration, the allocation of resources to recurrent education and training programs necessitates their diversion from other uses and, unless the productivity-enhancing effects of the recurrent programs is at least comparable with expenditure in other areas, a positive boost to employment may not eventuate.

Where recurrent programs may be more successful is in altering the distribution of employment in a more equitable manner through using the unemployed to fill positions left vacant by those participating in recurrent education and training programs. This process, which has been dubbed the 'vacuum effect' (Schuller and Bengtsson, 1977), is one of the most innovative proposals to have come forward through the recurrent education literature. In principle, in all but the most highly skilled occupations the absence of a particular worker should be able to be covered by the transfer into the vacant position of either workers from lower down the job hierarchy or the unemployed. The lower the level of skill demanded in the vacant position, the more likely that production could be maintained by a simple one-for-one replacement. The inverse relationship between the degree of skill required in a job and the ease of replacing that individual while on leave is consistent with both efficiency and equity objectives. As the least skilled are likely to be in relatively low-income employment, and since the absence of the least skilled is likely to be the most easily overcome by replacement workers, a policy of providing educational opportunities for low-income employees could be implemented at relatively low cost.

In Conclusion

Recent and prospective trends in the Australian labour market reinforce the value of recurrent education and training programs as part of a manpower policy package. The deepening of the economic recession since the mid-70s has adversely affected the employment prospects of many groups in the labour force and there is recent evidence that the position of the adult unemployed has deteriorated relative to

unemployed young people. To reduce the currently high level of unemployment requires a significant upturn in the number of new jobs available each year. If such an upturn is not forthcoming, recurrent education programs which seek to provide constructive activities for those unable to find employment, and which lead to an overall increase in educational participation rates among those of employable age, will be increasingly attractive on economic and equity grounds. However, even if much of the current unemployment problem is dissipated by an upswing in economic growth, there will still be a need for programs to assist the employed, and those who wish to return to employment, to adjust to the new skill and knowledge requirements of technological and other structural economic changes. Although such programs may of themselves do little directly to stimulate aggregate employment, they can assist the distribution of employment opportunities to be more equitably shared.

5 : RECURRENT EDUCATION PROGRAMS AND EQUITY

Concern with the equity implications of the allocation of educational resources has been one of the major themes in the recurrent education literature (OECD, 1971, 1973). The principal argument which has been advanced is that the concentration of educational resources in the early years of life exacerbates inequalities between generations and within generations. Within this broad argument, it is possible to detect two major perspectives on the relationship between education and equity. Crudely put, the distinction between these perspectives is the extent to which the acquisition of education is viewed as a desirable end in itself on the one hand, and as a means to an end on the other. These perspectives broadly correspond to the economic distinction between the consumption and investment components of education and, while sometimes difficult to separate in practice, the conceptual distinction between the two is useful for analytical purposes.

Both perspectives can be illustrated by the development of the recurrent education concept in Sweden. As noted in Chapter 2, Swedish interest in recurrent education was largely stimulated by educational disparities between the generations. As a result of the post-war expansion of educational provision for the young, by 1970 between 80 and 90 per cent of young Swedes received at least 11 years of basic education (Bengtsson, 1974). However, because of the relatively meagre provision for education before the 1950s, 75 per cent of those aged 40 years and over had received no more than seven years of formal education. Because of the importance attached to education as a vehicle for personal development, such disparities were perceived as undesirable on social equity grounds (Sweden. Ministry of Education, 1972). In addition, the unequal basis of labour market competition between young, well-educated workers and less-privileged adults generated concern among trade union organizations involved in educational and political decision making. The former concern was predicated on a view of education as inherently desirable while the latter perceived education as possessing an instrumental role in labour market success. Both concerns coincided in the development of policies to

broaden adult access to the formal education under the general heading of recurrent education (Ostlund, 1979).

The Concept of Equity

The equity criterion has not been a popular area of investigation for economists in the recurrent education debate. Only Ribich (1974) and Stoikov (1975) have attempted to incorporate the equity objective into their analyses in a systematic manner. As a general rule, economists have been reluctant to become involved in equity questions in most areas of resource allocation. The implicit rationale for this reluctance is that the economist's role should concentrate on identification of the quantifiable benefits and costs of particular policy proposals. If the resultant distribution of benefits and costs is judged subsequently (by others) to be inequitable, taxation and transfer mechanisms can be used so that the winners compensate the losers. However, such redistribution is not necessarily costless, because of the administrative costs of collecting taxes and making transfer payments and the possible adverse effects of taxation and transfer policies upon production incentives (Stoikov, 1975). Accordingly, it should be normal procedure to consider both the efficiency and equity implications of particular policies to determine what trade-offs might exist between the two criteria. One means of making such considerations explicit, suggested by Ribich (1974), places a price on equity by comparing the value of output under a policy which seeks to maximize efficiency with the value of output under a policy which departs from maximization for equity reasons. The difference in the value of output between the two policies is the cost of achieving the equity objective. Although rarely applied, this procedure would have great practical importance in those contexts in which both equity and efficiency of resource usage could not be pursued simultaneously.

One of the major difficulties in the incorporation of equity into analyses is a lack of clarity about the meaning of term 'equity'. Ribich contends that there are two general equity notions and two more specific equity concepts which can be applied in the recurrent education debate. The general notions are those of horizontal and vertical equity.

> Horizontal equity prescribes that individuals in similar economic and/or social circumstances should be treated equally by public policies; vertical equity states that those in unequal circumstances should be treated unequally . . . public policy should be relatively more generous to those in relatively less well-off situations. (Ribich, 1974:131)

The more specific equity notions which Ribich proposes for recurrent education are those of education as a reward for past services, and the view of education as a means of helping individuals fulfil 'legitimate expectations' threatened by forces outside their control. An example of the reward notion would be the provision of educational programs for ex-servicemen. Retraining programs for those who have lost employment through technological or other structural economic changes would be an example of educational provision on the equity criterion of meeting unfulfilled expectations.

The concepts of horizontal and vertical equity when combined correspond to the more common expression of 'treat equals equally and unequals unequally'. This imperative recognizes that equity entails both equality and fairness. Equality implies that people in equal circumstances should be treated equally, and fairness suggests that people in unequal circumstances should be treated unequally. The fact that equality and fairness are constituent aspects of equity provides the term 'equity' with a more comprehensive formulation of justice than is provided by the term 'equality' alone. In this sense, the phrase 'equitable opportunity' may be more useful in a policy sense than the more commonly used 'equal opportunity'.

As argued by Burbules, Lord, and Sherman (1982), the application of equitable opportunity to the practice of educational policy requires the prior specification of those characteristics which are relevant to the classification of people as either equal or unequal. They argue that characteristics are relevant to equity considerations when they are instrumentally related to the desired policy objectives. In the recurrent education context, these identifying characteristics are viewed in terms of short- and long-term goals:

> [There is] a double task for recurrent education: (a) a 'compensation' task, i.e. to compensate for the inequalities of the present and near future (and even medium-term future) educational systems; and (b) its 'real' and permanent task of spreading educational opportunity over a longer period of an individual's life. (OECD, 1973:39)

This formulation implies that the initial equity focus of recurrent education programs is the promotion of greater vertical equity: those persons whose prior educational experience was insufficient should have first opportunity to remedy those deficiencies. In other words, unequals should be treated unequally. The longer-term equity focus of recurrent educaton programs contains elements of both horizontal and vertical equity. The conjunction of these concerns is evident in

proposals to facilitate the redistribution of educational opportunities over the lifespan, such as the establishment of an education entitlement scheme (e.g. Levin, 1977). Under such proposals, all young people would be entitled to draw upon a stock of educational resources to finance post-compulsory education and training at different stages over their lifespan, a policy thrust which aims to treat equals equally. The vertical equity component becomes evident in refinements to the basic entitlement plan which allocate additional resources according to need (Levin, 1979). In sum, recurrent education is proposed as a means of providing a more equitable distribution of educational opportunities. In the short term, the focus on lessening inter-generational inequality implies that the relevant characteristic for the distribution of educational resources will be the extent of access to prior educational opportunities. Over the longer term, the emphasis on reducing intra-generational inequality implies that additional resources will be directed to those who are hindered from making full use of the educational opportunities that are available.

In order to assess the likelihood of the recurrent education strategy promoting a more equitable distribution of educational opportunities, it is necessary to clarify the meaning attached to the concept of an educational opportunity. As noted by Stoikov (1975), the discussion of educational opportunities has been somewhat confused because of the existence of at least three standards of equal opportunity: individuals have the same range of educational choices; individuals participate at the same rate in education; and individuals receive the same benefit (generally measured in terms of income) derived from education. Each of these three standards is evident in the recurrent education literature. Those concerned with inter-generational inequality are essentially concerned with the first standard since they argue that many older members of society have not had access to the same range of educational opportunities as have younger generations (OECD, 1971). A concern for intra-generational inequality is essentially a concern that the second standard has not been attained. Even though in principle all young people in the majority of Western nations have access to what are largely the same educational opportunities, participation rates between social classes still differ markedly (OECD, 1973). A distinguishing feature of recurrent education is the explicit reference to the role of education in promoting the achievement of the third standard of equality.

One of the essential motivations for introducing recurrent education is that it

Table 5.1 Educational Attainment and Age, Australia February 1982 (percentage of age group)

Highest level of attainment	In labour force							Not in labour force						
	15–19	20–24	25–34	35–44	45–54	55+	Total	15–19	20–24	25–34	35–44	45–54	55+	Total
Males														
Degree or equivalent	–	5	13	11	8	8	9	–	22	31	34	26	4	3
Post-school trade, technical or other	4	31	40	41	37	31	34	–					24	19
Attended highest level of secondary school available	20	23	14	7	6	6	12	11	51	14	66	75	6	9
Did not attend highest level of secondary school available	68	40	34	41	49	55	44	9	27	54			66	54
Still at school	8	–	–	–	–	–	1	80	–	–	–	–	–	15
Number of persons ('000s)	442	608	1143	926	702	514	4335	203	35	42	37	70	741	1128
Females														
Degree or equivalent	–	9	11	6	33	5	7	2	4	5	4	1	1	2
Post-school trade, technical or other	15	33	34	31		24	29		17	25	23	15	12	16
Attended highest level of secondary school available	22	19	10	7	7	10	13	13	18	9	6	7	8	9
Did not attend highest level of secondary school available	52	39	45	56	59	61	50	18	61	61	67	76	80	68
Still at school	11	–	–	–	–	–	2	68	–	–	–	–	–	5
Number of persons ('000s)	379	456	624	543	369	160	2532	223	181	572	380	367	1296	3018

Source: ABS, *Labour Force Status and Educational Attainment.* Catalogue No. 6235.0.
Note: Proportions may not sum to 100 because of rounding.

> is expected to be a better strategy than the present for achieving educational and, through this, social equality. (OECD, 1973:35)

Specification of those aspects of social equality relevant to recurrent education have included reference to equalizing peoples' capacity to cope with technological change (Dymond, 1977), to make constructive use of non-work time (Peston, 1979), and effectively to participate in the democratization of the workplace (Schuller, 1979).

A further conceptual issue that requires clarification is the meaning of opportunity. As noted by Ennis (1976), much of the dispute over equality of opportunity is essentially disagreement about what it means to have an opportunity. Burbules et al. (1982) propose that opportunity needs to be viewed in terms of the conditions and criteria of access; an opportunity to participate in education cannot be said to exist if people do not have either the capacity (financial or otherwise) to exercise a meaningful choice about their participation.

The Distribution of Educational Attainment in Australia

The broad dimensions of the inter-generational distribution of educational attainment in Australia are shown in Table 5.1. Excluding those aged less than 25 years, the table indicates a clear inverse relation between age and the level of educational attainment. When allowance is made for the fact that the 'highest level of secondary school available' for persons above middle age in many instances was likely to have been less than the Year 12 level, the inequality of educational attainment between the young and the old becomes even more marked. One index of the extent of inequality is provided by the age at which people of different generations tended to leave secondary school. Among full-time male workers in 1978–79, 20.1 per cent of those aged 25 to 34 years left school at age 15 or earlier compared with 37.5 per cent in the 45 to 54 age group (ABS, Cat. no. 4108.0). While the same degree of intergenerational inequality applied among female full-time workers, within each age group a higher proportion of females had left school at age 15 years or less than was the case for males.

The underlying cause of the marked inequalities in inter-generational educational attainments outlined in Table 5.1 is the substantial growth in the educational participation rates of the young over the past two decades. However, even within the age groups which have been the principal beneficiaries of the substantial increase in educational expenditure, the distribution of educational attainments is far from even. For example, among labour force members aged between 25 and 34

years, 47.5 per cent of males and 55.1 per cent of females lack a post-school qualification. These data reflect the fact that the retention rate of young people to the final year of secondary school, although substantially higher than 20 years ago, is still less than 40 per cent, and that until the late 1970s male participation rates exceeded female rates in most sectors.

Intra-generational inequality of educational attainment in Australia is reflected in the socio-economic background of those who continue in education beyond the minimum school-leaving age. The strong positive correlation between parental socio-economic status and participation in post-compulsory education has been well documented in many countries over recent years. An extensive review of the literature is provided by Husén (1975). The Australian evidence is broadly similar and indicates that young people with the ability to succeed in tertiary studies are less likely to continue in education if they come from relatively disadvantaged social backgrounds. This contention is supported by the findings of a recent study of the educational experiences of a large sample of 17-year-old Australians. When other measured variables (including achievement in tests of literacy and numeracy, and type and location of school attended) are held equal, 'each 100 point difference in [paternal] occupational prestige is linked to an increase of 0.07 in the probability of staying on to the senior years of high school' (Williams et al., 1980:66). Students whose parents are engaged in relatively low status occupations may be receiving little encouragement to proceed past the compulsory age, irrespective of how well the student is actually doing in school.

In regard to participation within the tertiary sector itself, the evidence which is available suggests that, despite the significant quantitative expansion of tertiary education in the post-war period, the socio-economic composition of tertiary students has changed comparatively little:

> Although some marginal trends are discernible, it is the fundamental lack of change which makes the overwhelming impression. The figures can only be discouraging for any idealist who wants to believe that education alone is sufficiently powerful to break down traditional social inequalities. (Anderson, Boven, Fensham and Powell, 1980:30)

In summary, three major points about the equality of educational attainment in Australia may be made. First, considerable inter-generational inequalities in levels of educational attainment exist: the expansion of educational opportunities over the past three decades has

most favoured the young. Secondly, significant differences have existed and continue to exist in the educational participation rates of socio-economic groups: the more privileged the home background, the greater the likelihood of participation in post-compulsory education. Finally, while the relative position of females has improved considerably in the past few years, the sex distribution of students is uneven across many fields of study and, for those groups aged more than 25 years, this is exacerbated by gross inequalities in the overall level of educational attainment of males and females. The extent to which such inequalities are judged to be inequitable will be largely influenced by the relationship between educational attainment and those other aspects of human behaviour judged to be socially important.

Education and Socio-economic Attainments

In the context of education being viewed as a vehicle to greater self-awareness and personal development, a greater equity of educational opportunity can be supported on the grounds of human rights in a civilized society. Such a view of education has been an important component in a number of arguments for the restructuring of educational opportunities along recurrent lines (e.g. Duke, 1976). It is possible, however, to support the value of education in enhancing personal development and also to recognize that education may play an instrumental role in the acquisition of social and economic attributes whose distribution may have clear equity implications.

The more even spread of educational opportunities has been seen as an important means to assist less privileged groups to participate effectively in decision making on political and employment matters:

> There must be opportunities for people to learn to assess individual and collective needs, and to inform themselves sufficiently to be able to participate actively in deciding which changes are to be supported and which rejected. (Schuller and Bengtsson, 1977:638)

This approach is based upon the premise that education is concerned above all with power. Schuller (1979) argues that, in the context of facilitating the transition to industrial democracy, the dynamics of the workplace and the socio-economic environment within which the enterprise operates demand that educational programs to equip workers for a meaningful participatory role must be organized on a recurrent basis. Manifestations of the industrial democracy strand of recurrent education include the right for trade union representatives at enterprise level to attend training courses during working hours and, on a wider

basis, the right to educational leave that was extended, during the early 1970s, to a wide range of enterprises within a number of nations, particularly in Europe (see Charnley, 1975). However, as argued by Davis (1979), the willingness of employers to provide educational leave and the preference of employees for this type of employment benefit over other benefits (such as salary rises) will be influenced by prevailing economic conditions. Thus one could expect that, under the current high levels of unemployment, demands for educational leave would be less prominent than a decade ago.

The strands of the recurrent education literature that have been concerned with promoting greater social harmony and more effective participation in decision making are reflected in the issue which has most concerned the study of the instrumental role of education: the role of a greater equality of educational attainments in promoting a more even distribution of earnings. In other words, to what extent could the provision of greater educational opportunities to those with low educational attainments improve their relative earnings position?

In order to address this question, it is necessary to determine two subsidary issues. First, what proportion of the differences in earnings is attributable to differences in educational attainments? Secondly, by what process are educational attainments translated into earnings? Attempts to resolve these questions has produced a massive literature over the past 15 years, particularly in the United States. At an aggregate level, this evidence suggests that the rapid increase over the past two decades in the number of people in the labour force who hold post-school qualifications has lead to a narrowing of the earnings gap between those with different levels of educational attainment, and a decline in the private rate of return to educational investments (Freeman, 1976). Australian evidence arising from the ABS income distribution surveys is broadly similar (CTEC, 1982). Such results are compatible with a human capital model of the education-earnings relationship:

> Generally the human capital model would predict that, for any earnings structure, the expansion of schooling accompanied by a reduction in qualitative and quantitative inequalities in educational results would tend to reduce the inequality of earnings. (Levin, 1979:7)

At a less aggregated level, a substantial body of literature has emerged which suggests that differences in educational attainment of themselves account for only a small proportion of differences in earnings (see, for example, Jencks et al. 1972; Behrman, Hrubec, Taubman, and Wales,

1980). Despite methodological criticisms of some aspects of this literature, the results strongly suggest that equalization of educational opportunities will not substantially reduce inequalities in earnings. In part, this conclusion underlines the contention in the preceding chapter that the human capital model of the education-earnings relationship is not unchallenged. As argued by Sorensen (1978), the possibility that, in some elements of the labour market, screenings and dual labour-market hypotheses may better explain the positive relationship between education and earnings suggests that an increase in the educational attainments of disadvantaged groups will not necessarily be translated into higher earnings.

The Potential of Recurrent Education

In the absence of a fully fledged system of education organized along recurrent principles, it is difficult to discuss the likely impact of recurrent education-type reforms of the education system upon the distribution of educational opportunity. Even in those countries where significant numbers of mature-age students are involved in further education, the fact that this group of people may be unrepresentative of their respective age cohorts makes the task of generalization from their experiences to those of adults in general a risky one.

A program which actively encouraged substantial numbers of educationally disadvantaged adults to return to the education system would, almost by definition, lessen differences in inter-generation inequalities of educational attainment. This result would be even more marked if the expansion of second-chance education opportunities for adults diverted resources from the education of the young.

From an equity perspective, the risk of policies which encourage the return of adults to the education system is that a 'second-creaming' may develop and adults who are already educationally advantaged may take up the opportunities that are offered. Strong evidence exists that those already qualified are disproportionately represented in post-school education programs. In 1979 almost 22 per cent of the total population aged from 14 to 64 was engaged in some form of post-school education experience, a total of 1.94 million people (ABS, Cat. no. 4211.0). Of these, 1.02 million attended a course at either a TAFE college, college of advanced education, university, or other post-school educational institution, and 0.92 million undertook a non-formal non-credit course. Of the persons who attended a post-school educational institution in 1979, 49 per cent already held a post-school qualification and, even

among those persons undertaking non-formal courses in 1979, 52 per cent possessed such a prior qualification.

One would expect that, in a number of the post-school education courses, the great majority of students would possess other post-school qualifications since such qualifications would be prerequisites for entry. However, there is evidence that, within particular categories of post-school courses, a substantial number of students are already in possession of qualifications from the same category of course. For example, in 1979 of those undertaking a trade certificate course or apprenticeship, almost 30 per cent already possessed such a qualification. A similar though less marked pattern is evident for university enrolments. In 1981 of those students commencing an undergraduate degree, just over 11 per cent already possessed a degree or diploma from an Australian university or college of advanced education (ABS, Cat. no. 4208.0).

The equity implications of policies which facilitate the involvement of adults in education programs need to be fully considered when, under current conditions, large numbers of those involved in post-school education programs already possess post-school qualifications. Unless carefully designed, an expansion in the opportunities for adult participation in education may in practice work principally in favour of the educationally advantaged.

Inequalities in participation rates may exist in a number of aspects other than educational qualifications. In France, for example, there is evidence that the broadening of opportunities for employee participation in training programs principally benefited those employed by large enterprises. In 1973, the proportion of employees participating in such training programs ranged from 2 per cent for the group of enterprises employing between 10 and 19 workers to 10 per cent for those with between 50 and 499 employees and 25 per cent for those enterprises with more than 1000 employees (OECD, 1976). It is perhaps only to be expected that a positive relationship will exist between enterprise size and employee participation in training programs. Among other factors, the absence of any one employee is likely to be more critical for a small enterprise, and the small enterprise is less likely to have ready access to training funds, yet it may be the employees of such enterprises who are in the greatest need of retraining programs. Similar considerations apply even more forcefully to limit the capacity of enterprises in declining industries to release their employees for retraining programs.

There is a further body of criticism that the recurrent education approach to promoting greater equality may prove counter-productive:

> If we educate everyone to the limit of his capacities, it may very well happen that inequality of income is intensified because 'the untalented, the incorrigibly stupid' lag behind . . . the danger threatens that permanent education will lead to permanent stress on performance and achievement, to a concentrated pursuit of success and career and so perhaps to permanent nervousness. (Stoikov, 1975:33)

Aside from concern expressed that the opportunities provided by programs under the return strand of recurrent education are disproportionately taken up by the already educationally advantaged, there is little questioning in the literature of the potential of such programs for lessening inter-generation inequalities of educational opportunity. This may arise because such programs promise a greater flexibility to adapt to new circumstances and individual needs (Cutt, 1978), as well as represent a continuing commitment to the objective of eradicating inequality of opportunity (Dymond, 1977).

The potential of programs under the deferment strand of recurrent education for lessening intra-generation inequalities of educational opportunity has attracted less attention in the recurrent education literature, aside from some early discussion of the importance of allowing individuals to time their educational participation to coincide with their own needs and motivations (OECD, 1973). On equity grounds, such a contention is difficult to contest. However, for the further element of this argument—namely that, other things being equal, the greater the age of individuals, the less will be the impact of parental socio-economic status upon educational performance—little evidence has been forthcoming. This lack of evidence is not surprising given the limited development of programs which provide educational opportunities specifically for large numbers of adults.

The experience of Britain's Open University in providing higher education for adults is one of the few examples of such programs. There is evidence that the Open University has attracted students from a wider range of parental socio-economic backgrounds than conventional British universities (McIntosh and Woodley, 1974) and that, allowing for the largely part-time and external nature of Open University enrolments, very reasonable graduation rates have thus far been achieved (McIntosh, Woodley, and Morrison, 1980). These data support the contention that the effects of a disadvantaged home

background upon educational performance tend to dissipate, the longer one is removed from that background. However, Mace (1978) argues that, because of the relatively high age of Open University students, the most appropriate measure of student socio-economic background is not that of their parents, but rather that of the occupations of the students themselves. There is evidence that Open University students from low-status occupations experience lower pass rates than do those from groups such as teachers (McIntosh et al., 1980) despite their (presumably) similar parental backgrounds. In other words, it appears that it is current and recent socio-economic status rather than parental socio-economic status which is the stronger influence upon adult academic performance, thereby reinforcing the recurrent education arguments. The importance of current economic status in influencing adult learning performance was also noted in a number of the studies reviewed by Knox (1977).

Despite the limited evidence concerning the potential of programs under the deferment strand of recurrent education for lessening intra-generation inequalities of educational opportunity, overall the strong equity thrust of most recurrent education proposals is evident. Whether such programs actually succeed in attracting educationally disadvantaged adults will be influenced by a range of factors, not the least being the financial conditions under which such programs are available.

In Conclusion

The advocates of recurrent education view the present education system as at best an ineffectual and at worst a counter-productive mechanism for promoting greater social equality. The limitations of the present education system are seen to arise because of its primary focus upon the young and the pervasive influence of home background upon the educational career of the young. Recurrent programs, it is argued, offer a better prospect for broadening educational opportunity, by directing resources towards meeting the educational needs of disadvantaged adults, as well as guaranteeing access to post-compulsory education in later life for those young people who, through circumstance or choice, leave the formal education system at a relatively early age.

There has been a growing recognition, shared by the recurrent education literature, that education is a limited tool for promoting greater social equality and, accordingly, the argument now increasingly focuses upon the potential of recurrent education for redistributing

power between employers and employees and for leading to the redesign of job structures (see, for example, Schuller and Bengtsson, 1977). However, the European evidence on educational leave schemes is pessimistic in that despite the intentions of legislators or trade union negotiators, leave schemes in practice tend to be directed towards those employees and those training programs which best suit the economic interests of the enterprise (von Moltke and Schneevoigt, 1977).

The potential of recurrent education programs for facilitating a more equitable distribution of economic outcomes is probably more obvious when attention is paid to the needs of specific groups. Programs which attempt to provide the unemployed with appropriate skills, or which attempt to limit the impact of technological or other structural economic change by retraining those whose jobs are threatened, can do much to promote greater social equity. Such programs, however, are most likely to achieve their objective when directed towards that type of unemployment which is attributable to a lack of skills. When employment is generally the result of depressed economic activity, such retraining programs, while possibly helping the trainees to gain employment, may only do so at the expense of the less skilled who already hold those jobs. The equity implications of training programs under such conditions need to be carefully considered.

6 : THE COSTS OF RECURRENT EDUCATION PROGRAMS

The implications of recurrent education programs for the operations of the education sector and the labour market need to be complemented by consideration of the likely costs of those programs. It is only by matching program costs against program benefits that resource efficiency can be ascertained. Efficiency of resource usage is of more than academic interest. If resource usage is inefficient, it implies that resources can be released for alternative purposes with gains in total benefits.

Conceptually, the measurement of the costs of educational programs has fewer pitfalls than the identification and valuation of program outcomes. The practical difficulty with the cost measurement of recurrent education programs is that few examples of such programs exist in a fully developed form. Accordingly, it is necessary to infer the likely costs of recurrent education programs from the costs incurred by other programs whose characteristics are similar to those envisaged for recurrent education. To provide a comparative standard, much of the discussion which follows attempts to assess whether recurrent education-type programs are likely to incur greater or lesser costs than conventional educational programs of the type which are currently provided principally for young people. This discussion addresses the likely magnitude of the per student direct and opportunity costs of recurrent education programs, and then attempts to place these in context by consideration of their likely aggregates in relation to prospective changes in the total costs of conventional educational programs for young people. The focus of this chapter is the likely magnitude of recurrent education program costs. Issues associated with the distribution of these costs between students, employers, and government are addressed in Chapter 7.

Direct Costs

The direct costs of educational programs comprise the capital and recurrent costs associated with establishing and maintaining the

programs. The key influence on the direct costs of recurrent education programs will be their structure and content, which in turn will be dependent upon the characteristics of the students for whom the programs are designed.

In terms of the potential participants in recurrent education programs, two broad categories of student characteristics can be identified. First, there are those whose capacities, experience, interest, and motivation would enable them to fit relatively easily into the program structure currently provided by the post-compulsory education sector. Included in this category would be people whose early intentions to continue their education were not able to be realized for financial or other reasons, and those who had come to see the value of additional education as a means of enhancing employment prospects or facilitating personal development. In many respects, such people could be likened to the increasing numbers of mature-age students who are currently participating in post-compulsory education. The cost implications of recurrent education programs to increase the numbers of such students can be discussed in terms of making a more extensive use of existing educational structures. The second broad category is more conjectural in that it refers to those whose level of educational background and interests make it unlikely that the current structure of educational programs would be suitable for either their needs or interests. The stronger the equity thrust of recurrent education programs, the more likely it would be that adults from educationally and economically disadvantaged backgrounds would be encouraged to participate. The limited experience of the formal education sector in coping with the needs of such groups suggests the need for the development of new, more appropriate structures (Simkins, 1976). The cost implications of recurrent education programs of this type are less clearly evident from existing practices.

More Extensive Use of Existing Educational Structures

A common theme in the recurrent education literature is that opportunities for increased participation by adults in post-compulsory education are likely to arise because young people are encouraged to defer elements of their studies (OECD, 1973) or, more recently, because demographic factors may result in less demand for post-compulsory education from traditional sources (Jourdan, 1981). From a cost perspective, the implications of these developments occurring either in concert or separately would be the creation of some spare

capacity in the post-compulsory education system with the consequent possibility of increased adult enrolments with little or no addition to total direct costs.

In the previous chapter it was argued that the structure of the labour market makes it unlikely that significant numbers of young people will defer voluntarily substantial elements of their education and that policies to encourage deferment may prove excessively costly. Consequently, the opportunities for increased education participation by adults are more likely to be shaped by demographic or other factors which result in fewer young people participating in post-compulsory education. Table 4.3 contains projections which outline the prospective demographic shape of Australia to 2001. If realized, the projections indicate a decline in the proportion of the population aged 5 to 24 years from 34.7 per cent in 1981 to 30.7 per cent in 1991 and 29.1 per cent by 2001. In absolute terms, the projections imply a small decline in the numbers in these age groups to 1986, a slight rise between 1986 and 1991, and a more rapid (although still relatively small) rate of growth during the 1990s. To translate these prospective numbers into prospective enrolments, it is also necessary to project educational participation rates for the relevant age groups. If the decline in educational participation rates by young people which occurred over the late 1970s was not reversed during the 1980s, this would imply a decline, or at best little growth, in aggregate educational enrolments until about 1991.

Recent projections of enrolments in the major education sectors have been analysed by Burke (1983) and are summarized in Table 6.1. The primary and secondary school projections are based on those published by the Commonwealth Department of Education in 1982, while the tertiary projections are derived from the 'preferred' projections published in Williams (1979). Primary school enrolments are projected to decline by 9 per cent between 1981 and 1986 and then to recover by 1991 to be some 4 per cent lower than in 1981. The projected pattern of secondary school enrolments is the reverse, with growth occurring until about 1986 and then subsequent decline so that, by 1991, total secondary enrolments would be little different to those which applied in 1981. On the surface, these projections indicate some potential for the release of resources to be devoted to recurrent education programs. However, structural factors concerned with the uneven patterns of enrolment change between Australian States and between schools within States, and prospective changes in the age and promotion

Table 6.1 Actual Enrolments, 1981, and Projected Enrolments 1986 and 1991 by Sector, Australia (1981=100)

	Primary schools	Secondary schools	TAFE (Streams 1–5)	Advanced education	Universities
1981 ('000s)	1872	1116	718	169	166
Index	100	100	100	100	100
1986	91	111	113	110	104
1991	96	101	120	121	111

Source: Burke (1983).

structure of the teaching service may increase the resource demands on these sectors. Of perhaps even greater importance are recent developments which, if sustained, would necessitate an upwards revision in the primary and secondary enrolment projections contained in Table 6.1 (Burke, 1983). First, there has been some rise in the level of immigration and the rate of natural population increase above those which formed the basis of the projections . Secondly, preliminary data indicate an upturn in secondary school retention rates above the levels assumed for Table 6.1. Thirdly, initiatives announced by the Commonwealth Government in mid-1983 stress increased educational participation by young people. Consequently, resource demands on the primary and secondary school sectors may well exceed those implied by the projections published in the table.

The factors which may lead to increased primary and secondary enrolments above those projected in Table 6.1 would, if sustained, be expected to increase tertiary enrolments in the late 1980s above those shown in the table. This prognosis gains support from the rapid further deterioration in the job market for school leavers over 1982–83 and increased financial support from the Commonwealth Government for secondary and tertiary students implemented in 1983. In sum, the prospect of unused capacity in the education system on the basis of declining student numbers is not supported by the projections in Table 6.1 and other relevant data. However, this is not the same as suggesting that some spare financial capacity will not be available for recurrent education purposes. If the expenditure increases entailed by the growth in student numbers shown in Table 6.1 and any attendant improvements in per student resource levels result in the aggregate growth in education expenditure lagging behind increases in GDP, funds could be devoted to recurrent education without an increase in the total share of resources

devoted to education. This possibility is addressed in the final section of this chapter.

A related perspective on the capacity of the education system is provided by Selby Smith (1975b) who examined the existence of institutional economies of scale in Australian higher education. From cross-sectional analysis of 1969 enrolment and cost data, he concluded:

> Average costs fall as enrolments rise, at least over a substantial initial range ... Although both the data and the results are insufficient for determining the level of enrolments which would minimize average costs, it clearly exceeds substantially the present enrolment in many institutions. (Selby-Smith, 1975b:45)

If such a relationship between enrolments and per student costs were still in existence, it would imply that enrolments could be expanded at a number of institutions at relatively low cost. However, the rapid growth in enrolments in the advanced education sector in the early 1970s and the more recent process of institutional closure and amalgamation have had the effect of moving the higher education sector closer to the range of institutional sizes judged by the Committee of Inquiry into Education and Training as necessary to give reasonable costs per student place (Williams, 1979). In 1978, for example, Australia had 19 universities and 73 colleges of advanced education with average enrolments of 8423 and 2054 respectively (ABS, Cat. no. 4208.0, Cat. no. 4206.0). By 1981, in part through a process of institutional closure and amalgamation, the average enrolment of the 19 universities had increased to 8769 and the number of colleges had been reduced to 68 with an average enrolment of 2427 students. Amalgamations carried out in the college sector since 1981 and prospective amalgamations between several of the smaller universities and neighbouring colleges mean a further decline in the number of higher education institutions constituted as separate identities and a consequent increase in average institutional enrolment. While there may be some opportunity for enrolment expansion at relatively low cost in some institutions with relatively small enrolments, such opportunities are less evident than several years ago. In addition, the location and specialized nature of some of the smaller higher education institutions raises doubts about their attractiveness to many of those for whom recurrent education programs may be designed

The preceding discussion has involved an essentially static conceptualization of the capacity of the education system. As noted by

Williams (1963), capacity will not be a single fixed point but will vary according to the potential of educational institutions to vary the technology for providing higher education services. Means by which institutions may raise output without increasing average costs (i.e. expand their capacity) include lengthening the academic year; having two intakes of students per year; increasing the number of evening classes; lifting staff teaching loads; lowering staff-student ratios; and improving management techniques. Not all of the options are judged by Williams to be worth pursuing on cost-effectiveness grounds, but they do open up debate on a range of alternative organizational structures for education. One such structure with particular relevance for the recurrent education debate is Britain's Open University.

The Open University

The Open University opened in 1971 with an initial enrolment of 19 500 students; by 1973, 42 000 students were enrolled and the enrolment for 1981 was over 65 000. It is Britain's largest university, enrolling about three times more students than the next largest university. The charter of the Open University emphasized the provision of second-chance higher education opportunities for adults; with few exceptions students had to be at least 21 years of age and no formal academic entry requirements were prescribed. To facilitate access to as wide a social and geographical clientele as possible, the Open University built upon and refined many of the established principles of distance teaching, and initiated a number of developments in the design and presentation of curriculum materials.

All of the Open University undergraduates are external and the vast majority of them study on a part-time basis. Student learning materials are prepared centrally in conjunction with educational technologists, broadcasters, and consultants from other academic institutions. The bulk of the learning materials are in written form and these are supplemented by an extensive range of radio and television broadcasts. In order to assist students with academic and other counselling needs, regional study centres staffed by tutors and other professional staff have been established throughout most of Britain. Students attend these centres on a regular, although limited, basis.

Drawing upon and revising the earlier work of himself and others, Wagner (1977) compared the costs of the Open University with those of the more conventional British universities. After making adjustments for the relatively small number of postgraduate students at the Open

University, the relative proportions of undergraduates enrolled for arts, science, and education courses, and the higher attrition rate of Open University students, he drew certain general conclusions:

1 The Open University enjoys a recurrent cost advantage per equivalent graduate of the order of 2:1 compared with a conventional British university.

2 Capital costs per equivalent student place at the Open University are only 6 per cent of those which apply at other universities.

3 When one combines the recurrent and capital cost advantages of the Open University with the fact that the part-time nature of most enrolments imply relatively few foregone earnings, the total resource cost advantage of the Open University per equivalent undergraduate is of the order of 6:1.

While Wagner's earlier and later work on the Open University has attracted its critics, notably Carter (1973) and Mace (1978), the criticisms do not alter the thrust of Wagner's cost calculations, and questions that have been raised about the relative quality of the Open University graduates have not been supported to the extent that any supposed quality differential would be of sufficient magnitude to outweigh the substantial cost advantage of the Open University structure.

It is less obvious that cost advantages of an equivalent magnitude to those demonstrated for the Open University in Britain would necessarily apply to a similar institution in Australia. The Report of the Committee on Open University (Karmel, 1975) accepted that savings in the form of lower foregone earnings and lower capital costs would probably be achieved by an open university structure but doubted that direct recurrent costs would be comparatively lower, at least in the estimated range of 30 000 to 45 000 enrolments thought possible for Australia. The Committee argued that, to achieve a genuine broadening of access to higher education in Australia, a more diverse range of courses would need to be offered than are provided by the Open University. This suggests that, if recurrent education programs are implemented on a wide scale in Australia, it may be more cost-effective to use existing types of institutions rather than create a new special purpose institution of the open university type.

Part-time Students

The potentially high levels of earnings foregone through full-time educational participation by adults are likely to result in pressures for

recurrent education programs to be structured around part-time enrolments. The most recent Australian study of the effects of part-time enrolments on direct education costs is by Gleeson (1977) who found that, in the advanced education sector, the additional institutional expenditure associated with enrolling a part-time student is about 68 per cent of the marginal institutional expenditure associated with an additional full-time student. There is also evidence that part-time students also experience relatively higher attrition rates than full-time students (Selby Smith, 1975a). Part-time study for mature-age students can prove a lengthy and demanding task which the pressures of adult life do not easily accommodate (Venables, 1972). The relatively higher attrition rates that are in general experienced by part-time students mean that the direct institutional costs of producing a graduate via the part-time study route exceeds the costs of producing a similar graduate by full-time study. These results are largely based upon part-time study which is often undertaken in less than ideal conditions. For example, in the Gleeson (1977) sample of part-time tertiary students only one quarter had regular time release from employment for study, and for only one half of these was the time off more than an hour per week. There is evidence of a positive relationship between institutional expenditure on student counselling support services and continuation rates amongst part-time students. These data suggest that programs designed to assist part-time and mature-age students in their return to study could be justified on cost-effectiveness grounds.

Non-traditional Structures

One of the major motivations for consideration of the recurrent education concept has been dissatisfaction with the functioning of the formal education sector. This dissatisfaction became manifest in proposals to rejuvenate the sector through adoption of the principle of recurrence as an organizing principle (OECD, 1973). These proposals were tempered by the realization that, for those adults whose early educational experiences were unsatisfying, organizational reforms might prove an insufficient incentive for renewed educational participation (Haines, 1976). In addition, it was argued that the encouragement of lifelong learning necessitated more than the adoption of recurrent principles in the organization of the formal education sector:

> Lifelong education . . . questions the role and monopoly of the teacher, as well as of the school or college. Systematic learning which takes place under

> the deliberate guidance of a workshop supervisor, community leader, public service divisional head, general practitioner, recreation officer or marriage guidance counsellor may claim equal status as education with what occurs in school . . . or university . . . The connotations of the 'learning society' are wider yet. (Duke, 1976:6)

As an elaboration of this view, it has been suggested that the implementation of recurrent education principles requires the extensive use for educational purposes of physical resources outside the formal education sector and the development of networks of community-based learning facilitators (Fowler, 1981). Ahmed (1975) has documented the economic advantages of a more extensive use of community facilities for non-formal education in developing economies. As yet comparable studies of the cost dimensions of related developments such as learning exchanges have yet to be undertaken in countries such as Australia. Intuitively, such developments have appeal as a cost-effective means of providing learning opportunities for many of those who would be reluctant to participate in more formal educational settings. Considerably more work would need to be done to document the resource and behavioural implications of their operations as well as to ascertain their appropriate role in a recurrent education strategy. As a further important consideration, recent developments in communications technology open up the possibility of providing large numbers of adults with access to learning resources without the need to incur the high capital costs of buildings, and the recurrent costs of high levels of staffing.

Opportunity Costs

The consistent finding across a large number of studies that earnings are positively correlated with age has given rise to one of the major criticisms of recurrent education proposals, namely that the cost to society in terms of foregone production when an adult is involved in education is greater than for a young person being similarly involved (Gannicott, 1972). The counter argument has been that, when cognizance is taken of the characteristics of those groups for whom recurrent education and training programs are particularly advocated, such as low income careers and the unemployed, the opportunity costs of their participation in education may be relatively low.

The Estimation of Foregone Earnings

Estimation of students' foregone earnings usually proceeds on the

assumption that, if students were not enrolled full-time in a particular level of education, they would have similar incomes to those of persons of the same age who have not proceeded to that level. To convert foregone earnings into the social opportunity costs, it is generally assumed that earnings reflect marginal productivity (Selby Smith, 1975b). The effect of this assumption is that foregone earnings are equated with foregone production.

In order to obtain a more accurate estimation of students' foregone earnings, a number of adjustments are often made to the base figure derived in the manner described above. The possible adjustments include allowances for differences in the ages of students, the probability of participation in the labour force and of gaining employment if not studying, and the effects of sex and regional location upon expected earnings. This method does not necessarily give a figure which would equal the earnings that could be actually earned if all full-time students were to cease their studies and tried to enter employment. If this occurred, it is probable that relative earnings for the relevant age group would fall significantly. Accordingly, foregone earnings estimated in this manner probably represent an upper limit for social opportunity costs. Psacharopoulos (1973) estimated that, in the developed economies, students' foregone earnings on average were about 50 per cent of the total costs of higher education. Selby Smith (1975b) and Gleeson (1977) estimate foregone earnings of similar proportions in the costs of Australian higher education. Foregone earnings are therefore of major importance in educational decision making by both individuals and societies.

Foregone Earnings and Age

The relationship between earnings and age that was outlined in Chapter 4 encourages the acquisition of post-compulsory education at as early an age as possible. For example, the mean income in 1978–79 of male full-time workers aged between 15 and 19 years who had left school at age 15 was $5490 while, among those aged 20–24 years, the corresponding mean income of those who left school aged 15 was $9020 (ABS, Cat. no. 4108.0). Accordingly, the earnings foregone by continuation in education through the post-compulsory school years are on average considerably less if undertaken from age 15 onwards than if delayed until the age of 20 years.

In the case of the return strand of recurrent education, since the average income of fully employed adult workers exceeds that of those

Table 6.2 Distribution of Weekly Earnings: Full-time Employees, All Jobs, Australia, August 1982

	Numbers earning less than median earnings of 15–19 age group ($169 males, $154 females) ('000s)		Numbers earning less than median earnings of 20–24 age group ($275 males, $237 females) ('000s)	
Age group	Males	Females[a]	Males[b]	Females[c]
20–24	33.0	21.2	–	–
25–34	25.2	17.2	311.8	127.2
35–44	16.7	14.6	220.0	98.3
45–54	19.1	12.6	195.3	84.5
55–59	7.9	5.7	93.2	20.3
Total	101.9	71.3	820.3	330.3

Source: ABS, *Weekly Earnings of Employees (Distribution).* Catalogue No. 6310.0

[a] Those earning less than $150 per week.

[b] Those earning less than $280 per week.

[c] Those earning less than $240 per week.

aged between 15 and 24 years by a considerable margin at all levels of educational attainment, the opportunity costs of providing full-time educational opportunities for young people are significantly less than the opportunity costs of full-time education for adults. In other words, if society has to make a decision about the allocation of educational resources between the young and adults, on this evidence, investment in the education of the young is more attractive.

This conclusion ignores the wide variation in earnings within age groups. Not all adults, even those in full-time employment, earn more than young people. In August 1982, as shown in Table 6.2, the median weekly earnings of a male aged between 15 and 19 years in full-time employment was $169; the comparable figure for a female was $154. However, at that time some 102 000 males and 71 000 females aged more than 20 years who were in full-time employment earned less than these amounts. In addition, even more substantial numbers of adults aged more than 24 years earned less than the median earnings of the 20 to 24 age group. Although the data in Table 6.2 need to be carefully interpreted because they include earnings from more than one source of employment and do not distinguish between different levels of educational attainment, they do provide support for the contention that,

relative to the earnings foregone through the educational participation of young people, the opportunity costs of participation by many employed adults may be comparatively low. Of particular relevance to the equity dimensions of recurrent education programs is the phenomenon of relatively low female earnings that is shown in Table 6.2. These earnings data imply that on average there will be lower opportunity costs for female education participation than for male participation, and provide an example of where the efficiency and equity consequences of educational programs may be complementary.

Unemployment and Opportunity Costs

By definition, there are minimal earnings foregone in the provision of education and training programs for the unemployed. Furthermore, for those adults who are currently employed and who wish to return to education, the existence of large numbers of unemployed may reduce the opportunity costs of absence from the workplace. These dual considerations coalesce in the claim that 'it is cheaper in real terms to provide educational opportunities for adults during a recession than in a period of full employment' (Schuller, 1978:15).

While for some people unemployment may be of only temporary concern or be considered as part of a job search process, the deepening of the economic recession has been associated with a significant increase in the numbers unemployed for substantial periods. In August 1975, for example, there were some 45 000 persons, or 16 per cent of the total unemployed, who had been unemployed for more than six months. By April 1983, the number of those who had been unemployed for more than six months was 272 000, which represented 38 per cent of the total unemployed (ABS, Cat. no. 6203.0). It is the long-term unemployed for whom the opportunity costs of participation in recurrent education and training programs may be lowest and the corresponding benefits highest.

Part-time Education and Foregone Earnings

Overseas evidence exists that the rates of return on a number of part-time courses are high relative to courses which involve full-time study, principally because of the lower earnings foregone through part-time educational participation (Maglen and Layard, 1970; Morris and Ziderman, 1971). This factor also played an important role in the relatively high private rate of return reported for apprentices in Australia (Miller, 1981).

Studies which have examined the relative return on the full-time and part-time routes to the same educational qualification are less common. Gleeson (1977) found in a sample of Australian CAE students that the discounted present value of the private costs of part-time study were only about 20 per cent of the full-time course, principally because of the lower foregone earnings of part-time students. For a similar reason, Agnello and Hunt (1976) estimated the average private rate of return on a Master of Business Administration degree by part-time study was 10 per cent compared with only 6 per cent for full-time study. The comparative advantage of the part-time study route eventuated despite the high valuation assumed for the leisure foregone by part-time students.

The economic advantages which may accrue to part-time study may be one reason for the gradual increase in part-time enrolments over recent years. Between 1977 and 1981, for example, part-time students increased from 28.2 to 32.7 per cent of university bachelor degree enrolments (ABS, Cat. no. 4208.0). From the recurrent education perspective, part-time study may also have the advantage of promoting greater flexibility in the education system, and facilitating the integration of work and educational experiences. This is not to say that there are no disadvantages associated with part-time courses as they are currently structured. Venables (1972) is particularly critical of the demands placed upon young adults attempting part-time study. However, to the extent that part-time courses can provide relatively high rates of return and since large numbers may be offered such courses because of the low opportunity costs involved, their expansion may be justified on both efficiency and equity grounds.

Aggregate Costs

The preceding discussion has examined the cost implications per student of recurrent education and training programs. A context for this discussion can be provided by consideration of the implications for the use of community resources which may be entailed by comprehensive recurrent education and training programs. As an illustration, reference will be made to the likely costs of a recurrent education program of the type first suggested by Mushkin (1966) and which would involve the provision of one year of sabbatical leave for all those in the labour force aged more than 35 years. Reference will be made to 1978–79 data because this is the latest period for which income, age, and educational attainment information are jointly available. At that time, there were

2.058 million full-time workers aged between 35 and 60 years, with an average income of $12 494 (ABS, Cat. no. 4108.0). A policy of enabling each worker one year of sabbatical leave would involve 4 per cent of this group, or just over 82 000 people participating full-time in educational programs each year. If each were to be compensated fully for the lost income incurred for this period, a total expenditure of some $1028 million would be required. This would be equivalent to just over 1.0 per cent of GDP in 1978–79 and, after allowance for direct education costs, suggests a total expenditure of the order of 1.5 to 2.0 per cent of GDP to finance such a scheme. Were the scheme to be confined to those without post-school qualifications or to involve less than full compensation for lost income costs would be correspondingly reduced. On the other hand, were the scheme broadened to involve those outside the full-time labour force aged between 35 and 60 years, total expenditure would be increased. Notwithstanding the details of particular schemes, the cost estimates associated with the Mushkin-type proposal accord with those estimated elsewhere as the costs of developing a comprehensive recurrent education and training scheme (OECD, 1980a).

The future capacity of the economy to finance expenditure of the order of 2 per cent of GDP for recurrent education and training purposes will be dependent on prospective changes in other areas of educational expenditure and the future growth of GDP itself. Burke (1983) has provided a series of high and low estimates for both non-capital education expenditure and GDP for 1990–91 which suggests that, as a proportion of GDP, non-capital expenditure on education could range from 3.8 to 5.6 per cent of GDP. As a comparative standard, the highest proportion of GDP devoted to current expenditure on education was 5.5 per cent in 1977–78.

Estimates of the type prepared by Burke are subject to a number of qualifications. However, if they prove to be reasonable approximations of future movements in GDP and education expenditure, they do suggest that because expenditure on current forms of educational provision is unlikely to increase significantly as a proportion of GDP, there may be increased financial capacity to fund programs of a recurrent education type. Of course, the existence of financial capacity does not guarantee expenditure commitments. The latter require judgments that the expenditure will bring worthwhile benefits and, if such assessments were made, the political and structural capacities which would be necessary to bring the programs to fruition.

7 : THE FINANCING OF RECURRENT EDUCATION PROGRAMS

Although the recurrent education debate has been conducted principally within the education sector and has been concerned largely with educational issues, there has been a realization that, to translate recurrent education proposals into practical programs, appropriate financing methods need to be developed. In response to this need, four major models have been proposed as means of financing education programs consistent with recurrent education principles. One of these, the educational entitlements model elaborated by Levin (1978), was developed as a specific response to the needs of recurrent education. The other three—namely a social insurance scheme financed from earnings (Rehn, 1974), an income-contingent loans scheme (Biederman and Billings, 1974), and a parafiscal scheme involving institutions with the characteristics of the public and private sectors (Clement, 1979)—represent modifications of financing schemes proposed initially for more conventional educational activities.

The significant feature of the four proposed financing models is that each differs markedly from the predominant forms of financing post-compulsory education and training that currently operate in most nations. In Australia, for example, almost all the direct costs of providing educational resources and services are met by governments out of general revenue and involve the allocation of financial resources directly to educational authorities and institutions. On the other hand, the opportunity costs of foregone earnings associated with educational participation are the responsibility of individual students and their parents. Although some subsidization of students' living expenses is available on a means-tested basis through the Secondary Allowances Scheme (SAS) and the Tertiary Education Assistance Scheme (TEAS), the amounts concerned are low relative to the earnings associated with full-time employment (Hayden, 1980) and are based upon a model of students' dependence on their families for financial support (Beswick, Hayden, and Schofield, 1983).

In the context of the objectives of recurrent education, present financing mechanisms do not facilitate recurrent participation in

educational activities, and do not encourage either the educational participation of low-income groups or the provision of a diversity of programs (OECD, 1980a). Such deficiencies in current financing mechanisms have prompted the development of the four models outlined above. The models differ in the extent to which they are likely to promote the achievement of these objectives of recurrent education programs. Such differences can be discussed in terms of their relative impact on the distribution of costs and the disbursement of funds.

The Distribution of Costs

Because it is students and their families who currently bear the majority of the opportunity costs associated with study and such a burden is particularly critical for low income groups, the advocates of recurrent education have advanced two major types of proposals. The first involves a shifting of part of this burden to employers, government, or some combination of both (Edding, 1974; and Schuller, 1978). The second is less frequently advocated and focuses on enabling students more readily to cover educational costs either by development of a mechanism for student loans (Biederman and Billings, 1974) or through encouraging student financial contributions in advance of educational participation by, for example, a social insurance scheme financed from earnings (Rehn, 1974).

The debate on the share of the cost of educational programs which should be borne by students is essentially a debate about the relative distribution of the benefits of such programs, and the role of financial factors in influencing the educational participation of different socio-economic groups. There is consensus that the further one moves up the educational heirarchy, the higher the proportion of the benefits of education which are retained by the individual student (Maglen, 1976). Hence, one of the major reasons for the heavy public subsidization of primary education is that there are judged to be considerable positive benefits external to the individual students associated with primary education in the form of, for example, the more effective communication possible as a result of general literacy. Without public subsidization, it is argued, under-investment by individuals in primary education is a likely result. On the other hand, it is argued that few, if any, externalities or wider benefits are present in the case of narrowly vocational programs (Rosen, 1971). If almost all of the benefits of a vocational program accrue to the individual trainee in the form of subsequent

higher earnings, substantial public subsidization of the individual costs of participation is likely to result in over-investment in the program.

Accordingly, when considering the appropriate level of public subsidization of recurrent education programs, it is important to identify the level and distribution of the likely benefits of the programs. For example, a literacy program for illiterate adults is likely to provide more external benefits, and thus warrant greater public subsidy, than a refresher course for an already well-qualified professional. In the former case, without public subsidization of either the direct or opportunity costs of the program, insufficient participants are likely to be forthcoming and society as a whole loses because some of its members remain illiterate. In the latter case, the bulk of the benefits of the program are likely to be appropriated by the professional in the form of higher income because of the improved service which can be provided to clients.

Role of Employers

One of the most extensively debated areas in the literature on the financing of recurrent education is the appropriate role of employers in supporting recurrent education programs. The debate is particularly marked in the case of programs which necessitate educational leave of absence from the workplace. The possibility of employees obtaining leave has been advanced as one of the key necessary conditions for implementing a system of recurrent education (Schuller, 1978). Young people will only postpone higher education, it is argued, if they can be assured of both re-entry to education and also adequate security during absence from the workplace. Similar arguments apply to the return strand of recurrent education.

Income maintenance by employers for participants on educational leave could be defended on the grounds that the employer will gain from a more productive and more contented employee following the leave and that, in any case, employers are in a position to meet such costs (Edding, 1974). To take the first proposition, an employer is not necessarily likely to gain from employee participation in leave programs, even if the programs are highly vocational, since the employee may use the skills acquired in the program to move to another employer. As argued by Becker (1964), employers will be most willing to support training programs which enable employees to acquire skills which are specific—that is, skills which raise employee productivity in the employee's current place of employment. Employers will be least

supportive of training programs which impart general skills—that is, skills which also increase the capacities of employees in enterprises outside their current employment. Such conditions are most likely to occur in large, specialized industries which do not face particularly competitive labour markets and which can contractually or otherwise retain the services of the employee following the period of educational leave (Williams, 1977). These factors may help to explain why, in the Australian employer context at least, governments are relatively generous with educational leave provisions for their own employees.

Capacity to pay is not spread evenly across all employers. Under conditions of sole reliance on employer contributions, those engaged in relatively small enterprises or declining industries may be considerably disadvantaged. In addition, when assessing employer-financed schemes, it is important to consider the extent to which the employer is able to shift the costs forward to consumers or backwards to employees (OECD, 1980a). For example, in the para-fiscal scheme proposed by Clement (1979), industry groups finance recurrent education and training programs for their employees through payroll tax. Such group schemes may lessen employer resistance to financing programs which would increase employees' general productivity as defined by Becker (1964). However, there is a risk that a payroll tax could encourage the substitution of capital for labour, and as such, while paid by employers, it may be ultimately borne by the unemployed. This would be a particular concern in labour-intensive industries (Levin, 1977).

The Role of Students

Biederman and Billings (1974) argue that, if adults were to finance a relatively large proportion of the costs of recurrent education programs in which they participated, such programs would have a better chance of implementation because substantial government financial involvement in financing educational programs cannot be relied upon. In addition, financing by participants could provide a market test of the demand for recurrent educational programs. However, those general factors which limit the development of a capital market to finance the education of young people (see Thomson, 1974) apply even more forcefully in the case of adults (particularly low-income adults) and that, accordingly, government support for an adult loans scheme would be required.

The basic form of the proposals examined by Biederman and Billings is that the education loans are income contingent—that is, the rate of repayment is dependent upon the level of post-education earnings. In

this way the interests of the lender are protected, as the repayment of the 'successful' high-income students will hopefully compensate for the lower level of repayment from those students who earn lower post-education incomes. This feature of the proposals is shared with a number of loans schemes proposed for young people to finance their higher education.

However, as Biederman and Billings recognize, the financing of adult participation in education through income contingent loans poses a problem which similar schemes for young people do not have to face. Because potential adult borrowers vary markedly in age, as well as the problem that varying post-education incomes pose for repayment levels, there is the further difficulty of varying lengths of post-educational working life out of which income can be generated to make the repayments. Accordingly, if relatively old adults are not to be disadvantaged, some subsidization of the loan repayments of old borrowers by young borrowers will be necessary.

These problems notwithstanding, where recurrent education programs are likely to give rise to substantial private returns, the financing of participation in these programs through a mixture of loans and grants deserves further examination. For such programs, loan financing offers the potential of increasing the participation in education by disadvantaged groups at minimal public cost.

A more comprehensive approach to the role of students in financing recurrent education and training programs is the extension of social insurance schemes. As proposed by Rehn (1974), a compulsory levy on incomes would enable the transfer, to other periods of life, of part of the income earned during employment. Such funds could be used to finance participation in recurrent education and training, income maintenance during periods of unemployment or other enforced absence from the workplace, and retirement. Supplementary grants could be paid by the government to encourage participation in high-cost activities and those considered necessary from a social perspective. The level of such supplementation could be adjusted to take account of prevailing economic and social conditions—for example, to encourage increased educational participation in times of high unemployment.

The essence of the Rehn proposal is to provide individuals with as much freedom as possible in deciding on the allocation of their time among work, education, and leisure activities. In this regard, the social insurance mechanism is in close congruence with many of the principles of recurrent education. However, given the limited Australian

experience of the operation of social insurance schemes of the type proposed by Rehn, considerable work would need to be undertaken to elaborate and assess the mechanisms involved. Such schemes would require extensive information and counselling services, and the consideration of the equity implications of the use of private resources by individuals to supplement payments from the social insurance fund.

The Disbursement of Funds

In order to encourage diversity of program provision and flexibility of responsiveness to student needs, the most extensive proposals for reform of the current fixing of post-compulsory education and training have called for the implementation of education entitlements schemes. The most developed of these proposals has come from Levin and has the following features:

> 1 Public support of post-secondary education and training would be channelled to the student in the form of a promissory note or entitlement.
>
> 2 The entitlement would obligate the government to provide a specified amount of grants and loans that could be used for participating in eligible education and training programs.
>
> 3 The entitlement could be used over the lifetime of the student, and the unused portion would draw interest. The amount of the entitlement and its composition between grants and loans would be determined by the family resources of the student and other factors such as the nature of the proposed program.
>
> 4 Any education or training program meeting the eligibility requirements set out by the government could accept students with entitlements and redeem them for cash from the government treasury.
>
> 5 Governments would sponsor an information and regulatory agency that would provide data for participants on training alternatives and their costs. (Levin, 1979:7)

Such a proposal has a number of general advantages from a recurrent education perspective, including the positive equity implications of guaranteeing each citizen the right of access to post-compulsory education and training activities. Further, the opportunity to earn interest on unused funds provides encouragement to assess carefully the available options and, if need be, to defer those activities.

The principal reservations raised about the entitlements approach concern the potentially high cost of the proposal (OECD, 1980a) and the sophisticated information processing skills that such schemes demand of their participants (Bridge, 1978). In terms of promoting

institutional responsiveness, a convincing case can be made for the entitlements approach. Those institutions which failed to provide the programs demanded by students would either have to develop such programs or face financial ruin. There is a risk that the range of programs may actually diminish under the entitlements approach, either because individual educational institutions discard those courses of marginal profitability (OECD, 1980a) or because the pressures of the market force institutions to form a cartel to restrict the range of programs on offer (Edding, 1974). In short, the potential of entitlement schemes for increasing the responsiveness of the education sector to the needs of recurrent education students, while considerable, has yet to be fully tested and the appropriateness of such schemes for particular recurrent education programs and for particular national settings needs to be examined.

In Conclusion

The common linking point in the limited literature on the financing of recurrent education is that, in order to achieve their objectives, recurrent education programs will need to be financed by mechanisms tailored to those objectives. There is further agreement that the limited development of recurrent education and training programs to date is partly attributable to the current financing mechanism employed in the post-compulsory education and training sector. One could be forgiven for the view that at this point consensus about appropriate reforms breaks down, as evidenced by the differences between the four major types of financing models that have been advocated to date. However, the differences between the models reflect differences between ends rather than means. The income-contingent loan scheme views recurrent education as primarily vocational with the major benefits to be appropriated by individuals. In a related sense, the parafiscal schemes with their strong emphasis on employer financial contributions are primarily concerned with mechanisms to maintain a productive workforce. On the other hand, the social insurance and entitlements schemes are more extensive in their orientation and emphasize the importance of facilitating individual choice in the interspersing of education with employment and other activities. Such differences reflect the various strands which run through the recurrent education debate. At the same time, they underscore the importance of the observation that recurrent education is a multi-faceted concept and that, rather than a search for a single financing mechanism, it would be more

appropriate to think in terms of a package of financing schemes, each designed to maximize the probability of achieving particular objectives.

8 : SOME CONCLUDING REMARKS

It is customary to conclude a review such as this with a series of conclusions about, or recommendations for, policy initiatives in the area under consideration. It is difficult to follow that custom in the case of recurrent education, principally because there are few concrete examples of recurrent education programs upon which recommendations can be based. Accordingly, it has been necessary in the review to elaborate the economic dimensions of recurrent education by reference to data and evidence from programs which, although incorporating some recurrent education elements, were not established to put recurrent education principles into practice. It is the gap, quite wide in some instances, between those programs and the types of developments envisaged under recurrent education which necessitates caution in extrapolating their experiences to what may occur with fully fledged recurrent education programs. These concluding remarks are more in the character of a drawing together of the threads of the debate identified in the preceding chapters.

One of the striking features of the recurrent education debate is the way in which educational ideas which had been dormant were elaborated and developed in a period of intense activity from the late 1960s to the mid-1970s. Obviously, the concept encapsulated a desired direction for change that was felt by many, both inside and outside the educational community. It is worth reflecting on the factors which precipitated and propagated these developments, for they provide a guide to the future shape of the debate.

A major impetus to the development of the recurrent education concept was a concern about the character of the post-compulsory education sector as it had evolved in many countries. Increasing numbers of young people were spending an ever-lengthening amount of time in education, a development that was judged by many to have adversely affected both the quality of the educational experiences offered by the sector and exacerbated inequalities, particularly between the generations. These concerns were felt in Australia, although perhaps not as extensively as in those west European nations where formal education engaged a much higher proportion of the young.

Recurrent education, through its emphasis on the redistribution of educational opportunities over the whole of adult life, offered the promise of alleviating these problems. If the young could be encouraged to postpone elements of post-compulsory education and educationally disadvantaged adults to return to formal education, it was hoped that progress would be made towards reforming the education sector and achieving greater equity of opportunity.

As is the case with the elaboration and refinement of many new concepts, the broad sweep of the early recurrent education proposals gradually came to be tempered. The notion which evolved was that of recurrent education as a long-term planning strategy rather than as an alternative organizational form to the present structure of the post-compulsory sector. This changed emphasis in the role of recurrent education was reflected in a shift in the economic analyses of the concept away from a direct comparison with the 'front-end' model of education (e.g. Gannicott, 1972) to a consideration of the advantages of particular types of recurrent education programs (e.g. Simkins, 1976).

Of at least equal importance in the changed emphasis in the recurrent debate was that, in the absence of any systematic implementation of recurrent education programs, post-compulsory education was undergoing some fundamental changes. In part, these changes were demographic as the bulge in enrolments caused by the post-war baby boom passed through the system. Perhaps more significantly, from the mid-1970s onwards, the growth in educational participation rates that had continued almost uninterrupted over the previous 20 years slowed and in some instances even reversed. These changes were felt in Australia as well as many other industrialized nations (Hayden, 1982). Under such circumstances there were less urgent pressures to encourage young people to defer elements of post-compulsory education. If anything, the pressure during the 1980s will be to lift educational participation rates among the young. In any event, the notion that young people could be encouraged in significant numbers to defer post-compulsory education had a limited appeal, at least from an economic perspective. The longer education is deferred, in general the higher the foregone earnings associated with the eventual return to the education sector and the shorter the period over which any subsequent benefits from education can be reaped. This argument has gained a particular potency from the rapid rise in youth unemployment since the mid-1970s. To defer education in such labour market conditions is to enter a job market of limited opportunities.

The focus in the recurrent education literature has shifted more towards the design of education and training programs for adults. Such programs are likely to have a particular appeal in Australia because of the relatively low level of education among our adult population and the economic pressures to which we are likely to be subjected. The emphasis of such programs should probably be upon the specific educational and training needs of adults who currently lack appropriate skills and knowledge, rather than upon programs which encourage adults to undertake higher education courses of a more traditional kind. This is not to say that large numbers of adults will not undertake such courses. The evidence of the past decade points to a higher proportion of mature-age students becoming involved in tertiary education. However, programs which encourage significant numbers of adults to take leave from full-time employment in order to follow the principal type of study route offered by higher education, namely full-time study, could prove costly principally because of the high level of foregone earnings. This is not to say that the financial lot of those mature-age students who wish to undertake higher education should not be improved but, rather, that to subsidize those who would not otherwise have contemplated such involvement could be difficult to justify on economic grounds.

A more appropriate emphasis would be upon the identification of groups of adults with particular educational and training needs and the design of programs to meet those needs. Such a proposal, while difficult to argue against, is not so easily implemented. A major difficulty arises with the identification of needs. In a model of educational provision such as we now have in Australia, the identification of needs for new types of programs and institutions or changes in the levels of existing programs and institutions, is an amalgam of market forces and assessments by education authorities. The market forces are reflected in the level of student participation in particular programs and institutions, while the assessments by education authorities are required to respond to these demands and their likely future level and configuration. For such a model to cope effectively with the demands likely to be made by recurrent education programs, the identification of educational requirements could need to be supplemented in two important ways. First, the monitoring of labour market trends and the economic and demographic forces which shape those trends would need to be extended, possibly along the institutional lines proposed by Niland (1979). Secondly, regular surveys would be needed of adults both in and out of the labour force as to the particular nature of the programs which

they would like to see conducted. Without such data, it is difficult to envisage sufficient lead-time being available to plan appropriate responses by the education and training sector.

The second major set of difficulties concerns the design and financing of the education and training programs themselves. With limited educational resources, it will not be possible to offer programs for all those adults who may require them and, thus, some form of rationing will be required. The criteria to guide this selection should reflect the objectives of the recurrent education programs themselves. As argued earlier in this review, the principal criteria which economists have used in the analysis of recurrent education programs have been in terms of the efficiency and equity of resource usage. There are several potential groups of recipients of recurrent education programs in which these criteria may be complementary. These groups are those with low levels of basic education and training skills, low-income groups, the unemployed, and women. The efficiency criterion is relevant for each of those groups because, in general, the level of opportunity costs incurred by their participation in programs would be relatively low. While the construction and implementation of programs designed to meet their particular needs may prove more costly than in the case of those with more recent and/or extensive educational experience, the lower level of foregone earnings associated with their participation could be sufficient to tip the efficiency scales in their favour.

The equity arguments in favour of their participation are more clear-cut. Where, in a situation of declining job opportunities, particular groups are denied access to jobs because of their lack of skills or are placed at greater risk because of the nature of the occupation and industry in which they are located, equity considerations demand a full consideration of their needs. The question arises of the real prospect that no matter how extensive retraining opportunities are, if there are insufficient jobs available, such programs will simply (although equitably) share the available employment. Under such circumstances the nature of recurrent education programs will need to be more cognizant than in the past of the changing mix between leisure, work, and education that is implied by an economy which is unable to offer full-time employment for all those who require it. Such considerations are likely to become more prominent if, as is widely predicted, the pace of technological change accelerates. The provision of more extensive recurrent education opportunities should not be seen merely as a means of ensuring that the education sector is more responsive to the needs of

the economy. Rather, the development of recurrent education programs could be seen as a means for the implications of technological change to be more thoroughly anticipated, understood, and used in an equitable manner.

This scenario implies an education and training sector which will require great flexibility to respond to a new and rapidly changing environment. Flexibility may be facilitated by the lessening of many of the demographic pressures on the sector which have operated until recently. The narrowing of the base of traditional age groups, upon which the sector has relied, implies increased opportunities for a post-compulsory education and training sector, with the resources to develop new programs and approaches to recurrent education for adults. As a further incentive towards greater flexibility, it could be necessary to consider an alternative means of financing recurrent programs for adults. If, as through an entitlements scheme, adults are provided with a greater capacity to choose the mix and timing of recurrent programs to meet their needs, the education and training sector will be compelled to meet those needs in a more direct manner than at present.

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